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INTRODUCTION TO SOCIOLOGY. II.[1]

PART III. GENERAL STRUCTURE OF SOCIETIES.

CHAPTER II. THE ANTECEDENTS OF SOCIOLOGY.

BETWEEN 1815 and 1830 A. Loria, in his excellent book *Les bases économiques de la constitution sociale*, wrote that, with the mechanical progress of industry and under the protection of a somewhat peaceful régime, a revolution, both economic and political, was taking place, characterized by the concentration of movable wealth; that in almost the whole of Europe a division of capitalistic power between agriculture, on the one hand, and trade and manufacture, on the other, coincided with a corresponding division of political power between the conservative party and the liberal party. We may accept the description of this phenomenon in its main outlines. Marx has also stated it, placing it in a more remote period, and, in reality, it appears in the most ancient civilizations, although under partly different conditions. In fact, the error of Marx and Loria is in not having observed that from remotest antiquity even the minor civilizations have passed through an analogous evolution, which, however, was different in secondary points, and less extended.

This economic and political concentration and differentiation had at that time (as always[2]) as its consequence, as a true reflex action, the concentration of the industrial laboring forces, on the

[1] Translated by Robert Morris.

[2] See my studies on the ancient civilizations: Peru, Mexico, Egypt, India, China, Iran, Persia, and Greece.

one hand, and the separation and dispersion of the agricultural laboring forces, on the other. According to our view, this phenomenon appears even in slave societies — for example, in the Grecian and Roman civilizations, as well as in the old southern slave states of the United States.

In the present, as in the past, this situation gives rise to the principal affluent of positive sociology, socialism, whose most illustrious modern precursors are Robert Owen, in England (1771–1858), and Charles Fourier, in France (1772–1837).

This socialism becomes more and more conscious of itself; it proceeds to the criticism of society and *constructs* plans for new societies, which are now no longer mere Utopias, but which already appeal to the sanction of observation and experiment. Socialism culminates with the school of Proudhon, in France (1809–67), and that of Marx in Germany (1818–83). Beginning with these writers, it applies the inductive and historical method to the study of social phenomena. With César de Paepe and Benoît Malon, the too exclusively economic concept of Marx, although retaining its fundamental basis, is transformed into an integral socialism, that is to say, into a complete view of the whole of society considered as a systematic and truly organic arrangement of co-ordinated parts. Further, socialism no longer refuses to accept the positive methods, especially the experimental method; it proceeds from the particular to the general, from the simple to the complex. For this reason it submits its ideal structure to the proof of successive experiments. Therefore it is ready for amalgamation with positive sociology. The most eminent contemporary sociologists are socialists; likewise, the socialists are sociologists.

The second current of positive sociology was essentially scientific. Up to the present time, it has been too much neglected by historians of social science, but its importance will continue to increase. In the seventeenth century, it was represented by Pascal, Fermat, Leibnitz, Huyghens, the Grand Pensionary De Witt, Hudde, Halley; in the eighteenth century, by the Bernouillé brothers, d'Alembert, Euler, Buffon. This scientific school began as a true science of the state. At first, it was

concerned only with calculations of probabilities, with tables of mortality which were to serve as the basis of loans in the form of life annuities. With Halley (1693), and especially with Buffon, it was for the time applied to all the phenomena of life and death. Finally, by the end of the eighteenth century, and especially in the beginning of the nineteenth, with La Place and Joseph Fourier, it was extended to social phenomena, especially to social mechanics and statics. The same movement took place in France, England, Holland, Germany, and Italy. Nothing proves better than this fact the organic character of this scientific movement, as I have shown in the numerous lectures which I have devoted to the critical exposé of the theories of this school, of which Ad. Quetelet was one of the most eminent representatives (1796–1874).[1]

Quetelet is to be associated with these immediate precursors, the majority of whom, like himself, were mathematicians, astronomers, natural philosophers. They belong in a common group because of the same atomistic and mechanical conception of society; and by this conception they are also connected with the principal founders of political economy. Quetelet did not distinguish society from the state. According to him, all deviations result from natural or artificial disturbances; progress consists in following the average of these deviations; the social structure is the most complete equilibrium possible. The center of this equilibrium is the average man. "The average man is to a nation what the center of gravity is to a body; it is by this consideration that we are led to an understanding of all the phenomena of equilibrium and of movement."

In antiquity, Aristotle and Archimedes were the precursors of this conception; the former extended it from mechanics to the moral and political sciences. Quetelet, however—and it is this which distinguishes scientific determinism in general from fatalism—considered social phenomena as modifiable and perfectible. In the first place, he likened society to an immense

[1] The critical essays on the static theories of Ad. Quetelet, A. Comte, and Herbert Spencer should have formed part of the present work; but, as the latter is already somewhat long, I am obliged to publish the essays separately.

living creature. According to him, this body is subject to a law of evolution similar to that of individuals: birth, youth, maturity, old age, and death. He investigated the distinction, so important from the static and dynamic point of view, between the constant causes, variable causes, and accidental causes. This distinction enabled him to show that the most variable factors are the social factors. He connected himself with socialism, as well as with positive sociology, by observing that the economic factors are the most general, those whose variations have the most direct influence upon all the other social phenomena. Thus variations in the price of rye and wheat influence natality, mortality, and criminality.

The conclusions are: first, that governments ought to diminish all the causes which produce great variations in the price of grain, consequently to reform institutions; second, that criminality in particular is a regular effect of our social organization. "It is society that prepares the crime, and the criminal is only the instrument that executes it."

Kant, the metaphysician most nearly approaching positive philosophy, held this physico-mechanical conception of societies. Moreover, all social economy, aside from the socialistic schools, still remained individualistic. Aside from the state, there were only individuals, molecules, a human dust. This dust the state prepares and combines in its laboratories, except that, with the liberal school, the social chemistry has no other law than liberty; no other order than its natural order.

An intermediate group between the latter school and the biologic school is that which no longer emphasizes the individual, but the group, the race, etc.; basing its studies wholly upon statistics. In fact, this point of view appears in the work of Quetelet, is developed in the school of Le Play, and is emphasized by Gumplowiez in a way that is unhappily too narrow.

The third current of positive sociology is represented by the different schools whose social conception is mainly biologic and organic. With Turgot, Condorcet, Cabanis, Dr. Burdin, Saint-Simon, Auguste Comte, Schäffle, and Worms, we see the idea of a social *structure* gradually superseding the static and dynamic

conception borrowed from the physical sciences; yet even Comte continues to use the latter expression. In Germany, Herder and Krause represent an analogous philosophic transformation.

In this passage from the inorganic conception to the biologic conception of societies, the preponderant place is still accorded to the idea of order; progress is considered as the development of order. In fact, moreover, with Comte this is just what dynamics tends to mean. In the bio-social doctrines, the static point of view and the dynamic aspect are equally important. The first is more simple, but more fundamental; the second, more characteristic, but subordinate. In biology the simultaneity of phenomena is more important than their succession.

It was otherwise as soon as the progress of psychology completed the point of view of the biological school. Already, even with Comte, ideological sociology, his law of the three states, is psychic, but psycho-collective, and even his social statics is of the same nature.

Eventually, as in the case of Herbert Spencer, the successive aspect of psychology becomes more and more predominant. The evolutionary conception dominates to the extent of almost completely absorbing the static aspect. It is no longer the organ that determines and explains the function, or the structure society, but the function determines and explains the organ. This is evolution itself. It is also proper to notice here the exaggerated and too exclusive tendency of a derivative sociological school which assimilates the life of societies to an entirely psychic life, either recognizing a real resemblance between the nervous system and the social system (Lilienfeld), or developing in a one-sided way both the resemblances and differences between collective psychology and psycho-physiology (E. Tarde, Lebon, Sighele, Simmel, L. F. Ward, Giddings, Baldwin, Izoulet).

This evolution of sociology was, however, both logical and natural. Integral and confused in the beginning, it endeavored successively to explain social phenomena by the laws of the antecedent sciences, keeping pace with the advancing organiza-

tion of these sciences. Next, it demanded the answer to the enigma from the particular social sciences. Finally, after having concluded, with Karl Marx and A. Loria, for example, that the most general interpretation must be economic, it arrived, by a true law of apparent return to the origin, at the knowledge that the interpretation of the social world must be sought from the whole, both of inorganic and organic nature, of which the societies are the spontaneous development; and, at the same time, from the *ensemble* of the seven classes of social phenomena, in the order of importance which their hierarchic classification has revealed to us. In short, sociology can be only an integral conception of the highest combination formed by the inorganic and organic factors, land and population, in the many social forms.

Our work would be incomplete if we did not also mention, as the fourth and last affluent of positive sociology, the contributions of the scientific specialists who have consecrated their labors to the study of one or more of the seven classes of particular sciences, including the elementary and abstract as well as the formal and concrete. Among these contributions, before all others, are those of the economic scientists, who belong to the sociological school because of their method, and because they never lose sight of the correlation of economics with the whole of social science. In particular, it is necessary to recall the works of A. Thierry, disciple of Saint-Simon, those of John Stuart Mill, de Laveleye, Fustel de Coulanges, Wagner, Mommsen, Paul Viollet, Morgan, H. Sumner Maine, Max Müller, etc., etc. All, in their different specialties, are sociologists; it is chiefly by their works, which serve as an intermediary between elementary sociology (represented by comparative and coordinated statics) on the one hand, and general sociology on the other, that the latter science is destined to be perfected through the continued progress of studies relating to the structure and evolution of particular institutions and societies.[1]

[1] In our *Elementary Sociology* there is a methodical list of many works whose study we recommend to those who are preparing themselves for the study of general sociology. (Bruxelles: F. Larcier, 1894–95.)

If at this point we cast a retrospective look upon these tributaries which have contributed and still contribute, in spite of their errors and their apparent detours, to increase the vast stream, sociology, we shall no doubt be struck by the small place which social pessimism occupies in this general evolution. In fact, this doctrine troubles only the surface of the majestic and limpid flow of the broad river which carries civilization toward the great intercontinental oceans. There is no scientific pessimism, no pessimistic socialism. On the contrary, all the efforts of the scientists and the workers predicate a continued reaction of humanity against physical and social miseries, a more and more perfect adaptation to the terrestrial and collective environment. Pessimism that throws off all constraint is the portion of decadent aristocracies; neither science nor work has ever despaired of the future.

As we have to proceed to the methodical investigation of constant and necessary relationships — that is to say, to the investigation of the general abstract laws of the structure of the *ensemble* of societies — it is advisable to recall these preliminary considerations in order that we may not lose sight of them. Therefore we repeat here, what we have developed in *Les lois sociologiques*, that each science has its own method, but that each method is applicable to sociology, because the latter is the science of the highest combination of inorganic and organic factors. Likewise the method appropriate in sociology is retroactively applicable to all the antecedent sciences, as is shown by the historical studies relative to these sciences, especially since the advent of sociology.

SCIENCES.

Mathematics, mechanics, astronomy: method, direct and indirect observation.

Physico-chemical sciences: the same as the preceding plus the experimental method.

Biology: the preceding methods plus the comparative method.

Psychology: the preceding methods plus the logical methods, deductive and inductive, of concordance, difference, residuums, and concomitant variations, the four processes which are an artificial or rational prolongation of the experimental method.

Sociology: the preceding methods plus the historical method.

As examples of the utilization of subsequent methods by the antecedent sciences we may cite:

First, the application of the historical method to sciences other than the social sciences, and the utility of this application from the point of view of the progress of inventions.

Second, the physical experiment of Plateau upon the formation of nebulæ. By means of a tube, a drop of oil was introduced into the center of a mixture of water and alcohol contained in a vase. Through the axis of this drop there was passed a spindle, which was given a regular rotary movement. The sphere of oil turned with its axis. It became flattened at the poles and expanded at the equator. From this enlargement there became detached a sort of ring which broke into globules, each of which began to turn around the central mass.

As examples of the utilization of antecedent methods by the subsequent sciences we may cite:

First, the application of the experimental method to physiology and biology.

Second, the application of this same method to sociology, for example, in the private and collective experiments made concerning the influence of a reduction of the hours of work upon productivity.

The retrospective view which we have just taken of the structure and evolution of the social theories and methods which have united in the formation of sociology permits us to observe that it is the simplest and most general sciences with their appropriate methods, consequently the sciences first perfected (the mathematical sciences, mechanics, astronomy), which imparted the first forms and the original direction to sociology. Later, and successively, social conceptions have been under the influence of the physico-chemical sciences, especially in theories of the natural order of societies and of liberal economy. Still later they received the impress of biology; and finally, toward the end of the nineteenth century, and also at the present time, they have been influenced by psycho-physiology.

This subjective evolution and this subjective organization of our social knowledge are parallel with the objective formation

and objective evolution of social phenomena; they are therefore natural. Thus sociology and societies are the true, logical continuation of the antecedent sciences and of the universal order.

Biology and psychology are the natural transition to social science. Biology reveals to us cellular differentiations, cellular associations, that is to say, groupings and combinations of organisms; it reveals to us a physiological division of functions, in relationship with an organic differentiation contributing to the collective life and structure of the whole; it shows to us the division of sexes which imposes, in certain species, at least a momentary union of beings who are forced by nature to complete one another, and also even at times to disappear when once the work of reproduction is realized.

Psychology, apart from the collective organization of all of the organs and groups of organs belonging to the nervous system, reveals to us associations of movements, of emotions, of sentiments, of ideas, of states of consciousness more or less complex, sympathetic phenomena: fears, panics, imitations, etc.

In the case of certain animals, groupings of the collective psychic states are produced by the mere fact of juxtaposition, by the placing together of individuals of the same species or of different species. We see the formation of animal societies, just as we have seen the uniting of cells and groups of cells. Thus, naturally, to the other properties of unorganized, organized, and conscious matter are added the social properties, by a slow evolution which is so unbroken that even psychology seems necessarily to be collective; from which follows the deduction that even society should be a phenomenon of collective psychology. In fact, sociality appears at the summits of biology and psychology, which, by a truly organic filiation, are united by it to the structure of societies.

Thus, social science begins where the domain of biology and psycho-physiology ends, but there is continuity between these two domains.

Another observation results from the history of the organization of social science and as a corollary from the preceding

observation. It is that the progress of sociological evolution leads us to consider social phenomena as less and less immutable, fixed, absolute, and unmodifiable. Biology, and especially psychology, prepare us to recognize, not merely the simultaneous characteristics of social phenomena, but also the successive and variable characteristics; biology has laid the foundation of "social transformism." Order, which was at first conceived by the old writers as immobile both in social science and in biology, was recognized later as an evolutional successive order; psychology, with its phenomena, which are so very mobile although they are subordinated to the nervous systems which have themselves been evolved from the simple cell to the most complex organs, acts in the same manner upon the old conceptions both of organic and of social life. Statics retained its logical and historical precedence over dynamics, but the latter became the characteristic of organic and collective life to such a degree that statics was thrown in the shade by the more recent schools. However, sociology will always remain subordinated to the natural inorganic order, in which constancy and fixity are relatively predominant, especially in the phenomena belonging to the mathematical and physical sciences. On the other hand, the progress of dynamic science will only increase the importance of statics, by showing that evolution itself is a continued equilibration.

If concrete sociology is chiefly concerned with the qualitative laws of particular societies, laws deduced from the historical description of the societies, if therefore it accords more importance to variable conditions—abstract sociology, in its turn, by eliminating the variable conditions, leads us back to the consideration of the constant laws of societies, but with the higher conception that there is a static order in dynamic evolution. In reality, the social order, more than all other orders, is evolutional; and social evolution, as well as all other evolution, is ordered; the difference is only in the intensity of the evolution and the degree of organization.

However, it is necessary never to lose sight of the fact that a sociological law is virtually constant and necessary only so

long as the conditions of the phenomenon studied are constant. This constancy is therefore relative in concrete sociology in proportion as one considers the more special, and therefore the more variable, conditions and relationships. When, in the first two parts of the *Introduction to Sociology*, we touched upon the study of abstract science especially from the point of view of method, and without the rash, and at this time premature, pretention of organizing an integral and perfect sociology, we found ourselves in the presence of a world both considerable and mysterious, on account of its size and because of the complexity of its materials and of their combinations. This world appeared to us unfathomable and hopelessly intricate. From the point of view of mass and magnitude, it extended from the smallest societies to that universal society of which we have a vague idea. The phenomena which were manifested in this mass appeared to be infinite in quantity and indefinable in quality. They were intangled in a medley of discouraging complexity, of extraordinary variety.

General scientific development is confronted historically by the same difficulties that face each of us in his individual education. Social science has advanced in accordance with the laws of the individual mind. It began with purely empirical and superficial observations, with the examination of simple special cases. It has advanced only step by step to positive synthesis, to abstractions. Moreover, it has always begun by seeking, by means of that which it already knows, to explain that which it does not understand as yet, or that which it perhaps may never understand.

It is thus, for example, that the social order was conceived as providential, as resulting from a commandment, from a fiat of a superior, analagous to what was customary in ancient societies in the chase, in war, and in the other successive forms of rudimentary activity. It was only very recently that the social order lost this primitive significance of commandment and was conceived as natural, but invariable, in the same manner as inorganic matter, of which there was already a more exact knowledge. This new theoretical conception corresponded also to practical social

life. For example, toward the end of the eighteenth century, and at the beginning of the nineteenth, the conception prevailed of a natural and spontaneous order of societies, obedient to the invariable laws, which science must be satisfied with knowing, and which politics must free from all artificial hindrance to absolute liberty of action. It is only in later times that the social order has been regarded as naturally variable, that is to say, as a relative, evolving order. This more correct theory will necessarily transform social politics into its image. Beginning with this time, sociology may be considered as scientifically established, that is to say, established in possession of its own domain and its own method.

In sociology, as in every other natural science, we have to study the phenomena which are presented to our investigations as a mass. Therefore, as medical students proceed with an organism submitted to them, or as an infant with a doll which awakens its first curiosity, so in a similar manner, but on a larger and more complex scale, have we, in our past researches, begun by tearing our doll to pieces; we have proceeded to its dissection, to its completest possible analysis. Our first and most general observation has been that every society is a combination of two elements: First, an environment, to which I have given the name land, but which is composed of all the inorganic factors, and also all the organic factors, of nature, with the exception of man. The study of this environment in its relationships with the second element, population, may be made the subject of a special science, *social mesology*. The second element is the *human population*, that is to say, that division of organized beings, those mammiferous animals, belonging to the order of primates, to the family of bimana, which certain determined characteristics constitute a particular species. This second element may be made the subject of another special preparatory science, *anthropology*.

These two elements, land and population, embrace the entire domain of the antecedent sciences: they are the constitutive material whose reciprocal actions and reactions produce the social phenomena, societies.

Here it is appropriate again to point out an almost universal error of sociologists, which consists in considering societies as the result of merely biological and psychic combinations, especially the latter.[1]

Every sociological phenomenon assumes and implies the two elements, land and population, in sociology; these elements are inseparable. Thus, to borrow an example from the simplest and most general social phenomena, the economic, there are among the factors of production, besides labor and capital, the natural agents, earth, water, solar heat; the economic phenomenon of land rent is closely connected with these natural agents. This factor is as constant as the human factor. This blending of the natural agents is universal in sociology; no social phenomenon is purely psychic or ideologic.

In his work upon positive philosophy (Tome, IV, XLIX[e] Leçon), Auguste Comte, after stating the necessary relationships of *social physics* with the other fundamental branches of positive philosophy, very properly said that *social physics* is hierarchically subordinate to the latter, and he added:

> The positive study of social development necessarily implies the continued correlation of these two indispensable ideas: *humanity which accomplishes the phenomenon* and the constant *ensemble* of exterior influences, the scientific environment properly speaking, which governs this partial, secondary evolution of one of the animal species.

However, this thought of Comte's is only a defective approximation to reality. In the first place, humanity is only a derivative conception; it does not accomplish the social phenomenon; it is itself the highest accomplished social phenomenon, and this phenomenon is realized by the combination and the fusion of the two general, elementary factors, land and population. In no society do we find an agent and a passive recipient, an actor and a theater. The agent is at the same time the recipient; the actor forms an integral part of the theater. For Comte's dualistic conception we substitute, then, a monistic conception. We may observe, however, that Comte's conception is superior in every

[1] Especially M. Tarde, who has very well summarized this false point of view in the *Scuola positiva* of September 15 and 30, 1893, pp. 780 ff.

respect to the conceptions of the biological and psychological schools, as the latter are merely one-sided, being monistic only in appearance.

Here, then, are the irreducible elements of societies; societies are the transformed products of these elements. Thus societies not only continue, but also contain, all nature, and sociology is the true daughter of the other sciences, uniting their hereditary characteristics with its own acquired qualities.

CHAPTER III. THE SOCIAL AGGREGATES.

In sociology, as in the other sciences, we do not generally know the aggregates in their inmost composition, in their simple elements. At first they present themselves to us in the composite, concrete state. Previous to our analysis, the social superorganism appeared to us as a complex whole. It is still so even afterward, but with this enormous difference, that this vast, mysterious body has revealed to us the elements which enter into its nature, the properties which its tissues manifest, the functions, the organs, the groups of organs, the systems which regulate the activity of these properties, and even that related knowledge, especially of descendance and of filiation, which shows how these many parts are devoted to the service of the structure and the life of the *ensemble* of societies. We are able, therefore, to define the social aggregates. In general, following the definition of Littre, an aggregate is "the mass produced by the union of different substances which have become united from the moment of their formation." In the same way, a social aggregate is the mass produced by the union of different substances, land and population, united together from the time of their formation. Any mass of social matter which is united together—here is the first general condition of all social structure; and this matter is indissolubly composed of human units and an environment no longer unconnected and antithetical, but combined and aggregated, forming a unified whole. It is therefore a cardinal principle, the neglect of which vitiates all the sociologies, that man is not sufficient to constitute a society. Society must include a correlative part of the rest of nature.

Union of these two different elements, land and population, into a whole—this is a primary, universal law of every society, the basis of all social statics.

Any social aggregate, however simple it may be, is, then, in itself a combination of different elements implying a constitutional differentiation. It includes a certain extent and quantity of inorganic and organic nature and a certain number of human units. This social aggregate may be partial; that is to say, limited to a group of human beings and lands. It may even go so far as to include the whole of humanity and the planet. Its conditions will be the same in the two cases, with this difference, that, in the first, the social aggregate will be limited either by other social aggregates or by an external territorial environment not yet socialized; that is to say, not yet combined with constitutive human units into an aggregate. The bees do not constitute a society without the hives. It is the nest which is at the basis of every society of insects.

The phenomenon called society is, then, a relationship. It implies a constant, necessary, combination of the following conditions: (*a*) a social mass composed of, first, land; second, popuulation; (*b*) the union of the two different elements of this mass into a whole; (*c*) a certain differentiation of this latter from the other social aggregates, or from the rest of the land, unless the entire planet has been organized into a superior social aggregate, binding together, in the same condition, the particular social aggregates. Wherever these conditions are found united, the phenomenon society appears. Here is the most general static law, the most general law of existence, the primary, fundamental condition of all social structure.

We find here the two permanent factors of every organic equilibrium: (1) a certain internal arrangement in harmony with (2) a certain arrangement of the external environment; an internal arrangement of parts united together, or internal equilibrium; harmony of this arrangement with external environment, external equilibrium; combination of these two equilibriums into a single, complete equilibrium. All the most extended and the most complex social structures will be only special cases of this

simple general structure. All known facts prove that the juxtaposition, in any part whatsoever of space and at any point whatsoever in time, of these two elements, land and population, necessarily and constantly produces a social structure characterized by the preceding conditions. Nothing proves better that societies are formations which are neither exclusively biologic, exclusively psychic, nor yet merely physical and mechanical. The formation and conformation of societies may be explained in an entirely natural manner without implying the intervention of a mysterious theological or metaphysical force; the non-formation or the different conformation of societies would be miraculous and incomprehensible under the conditions which we know. Sociology has also this advantage over the other natural sciences, of being able to show, either historically or by observation of the present, social forms in process of differentiation, and therefore reduced to the simplest, most general conditions. Without taking into account prehistoric populations, Australia, Africa, Asia, America, and even the lower strata of certain of our European populations, present specimens of this rudimentary social existence, resulting from the single fact of the meeting of a certain number of human beings in a definite environment, and of their social fusion with this environment.

The point of view of the mesological school and that of the anthropological school, in which I include the psychological branch, are equally true, but they are only in a state of uniting and merging into a broader interpretation. In sociology, man and the environment, the actor and the theater, the subject and the object, the agent and the recipient, are only one; they are the indissoluble parts of a single aggregate; their dissociation implies the dissolution, the death, of the social structure.

We have already stated that the inorganic as well as the organic structures prepare us for the appearance of societary structures. Molecular aggregates are also masses of atoms united together. Organized beings are associations of cells. The same is true of the nervous systems, from which arise our states of consciousness, our combinations of desires, emotions, sentiments, and ideas. In the same way the concourse of indi-

viduals is formed by the environment. It is composed, not only of individuals, but of individuals and the environment. Society is a superior form of the whole of nature, a necessary form of conservation and adaptation. The solitary tree dies in the same climate in which the forest endures and enlarges its extent, but the tree and the forest are inseparable from the earth.

A second constant necessary law of every social aggregate is that the appearance of the phenomenon called society involves the spontaneous production of the entire series of phenomena or properties that belong to the social matter: the economic, genetic, æsthetic, scientific, ethical, juridic, and political properties. All societies, even the most rudimentary, even those limited by the most special aim, manifest, by the mere fact of their formation as aggregates, these seven classes of properties. This statement is incontestable with respect to the first two properties. Nowhere, neither in prehistoric peoples nor in inferior populations, living or extinct, do we see verified the hypothesis of the human individual living exclusively by his isolated efforts, and reproducing his kind without at least intermittent sexual relations. We likewise observe on every hand certain physico-psychical manifestations in connection with the successess obtained, or the failures sustained, in the military, economic, or genetic life; a certain tendency to manifest joys and sorrows, and even to regulate them; to embellish either the habitation and the instruments of labor and warfare, or the human person itself; everywhere the relationships with the internal and external environment give rise to certain beliefs—beliefs which are at least empirical, whether true or false, and which are soon unconsciously and unintentionally systematized. These beliefs assist more or less in the guidance of the members of the group, and become fixed in collective customs which involve approbation or blame, and, under certain circumstances, a support or a repression, which is also collective. Everywhere, in fact, the whole of the aggregate submits to a general direction, conscious or not, organized or diffused, which was itself produced only by the most general internal and external necessities. So it is with those bands of wolves which are guided like a blind force through the

steppes with an irresistible, although blind, uniformity and cohesiveness.

This law, that every society implies the spontaneous and simultaneous production of the whole series of social phenomena, is only apparently contradictory to the law of the filiation of the same phenomena, which was set forth in Part I, and to that of the filiation of functions and organs set forth in Part II, of *L'introduction à la sociologie*. In fact the constant, necessary coexistence in every aggregate of all the social characteristics is, in rudimentary societies, a confused, homogeneous, coexistence; that is to say, the superior phenomena, and especially their organs, are not yet differentiated, and will be differentiated only in succession. Thus the æsthetic, intellectual, moral, juridic, and political activities of rudimentary societies are manifested only as they are involved in the economic and genetic structure and life. This is all the more true as each of the primary social properties gives spontaneous birth, in its own special domain, to the entire series of subsequent properties. In this way, there is a sexual, artistic, scientific, moral, juridic, and even political, activity which is purely economic. Whatever may be the form assumed in time and space by the social aggregates, all, without exception, include the entire series of social properties, whether these aggregates are amorphous hordes, tribes, clans, families, cities, nations, or confederations of states; whether the aggregate is the vast human society or the smallest special society formed contractually according to the provisions of civil or commercial law; whether it is a professional syndicate or humanity. There is no contradiction between the law of primitive and persistent homogeneity and the law of successive differentiation. The constancy and the necessity of all the social properties in every aggregate, however rudimentary it may be, are, on the contrary, the explanation harmonizing the one law with the other.

Every fragment of social matter is, then, a complete social aggregate, so long as this fragment is not reduced to a single human unit, or to a portion of land without human units. It is complete because, from the mere fact of the juxtaposition of the

two constitutive factors, and of the actions, reactions, and combinations which are the consequence of this juxtaposition, it forms a social substance, an aggregate. However, as we have already indicated, this idea of the social aggregate, such as it is, is not yet sufficient to permit us to advance by it alone to the conception of *social structure*, of social statics, of equilibrium. Up to this point, we know only the social mass composed of different parts and endowed with a certain number of properties. In order to advance to the comprehension of the idea of structure, there is needed the supplementary notion of a certain arrangement of the constitutive parts of the aggregate. This arrangement must be such that the social mass can hold itself in equilibrium, not merely in a state of repose, which is only an abstraction, but also in a state of movement, which is the other inseparable aspect of life.

The simplest, the most general arrangement for every social aggregate is that which results from a differentiation between its mass, composed of the elements which we know, and the external environment. We temporarily neglect the latter in order that we may consider the internal arrangement of the parts in relationship to the structure and the service of the whole. A substance may be called organized when it is composed of simple elements more or less numerous, and united by special combination and reciprocal dissolution. This is the character of the simplest, most elementary organic order. However, in general, each anatomical element possesses also another characteristic of organic order, a characteristic that is found only in living bodies; this is the possession of a structure, of a function. Structure implies, then, a correlated arrangement, with mediate or immediate continuity, of the particular organs, groups of organs, and systems constitutive of the general structure. Matter called organic is in reality *organized* only when there is structure, that is to say, a determined juxtaposition of matter organically differentiated.

Likewise in sociology the mass or aggregate may be considered as superorganic whenever it is composed of inorganic, organic, and psychic factors combined, and therefore necessarily

manifesting the seven groups or classes of social properties in such a manner that these factors and properties are united among themselves by means of their special combination and reciprocal dissolution. Further, each social aggregate has another organic characteristic—a characteristic which it has in common with living bodies—namely, the possession of a structure, a special arrangement adapted to the general use; hence, also a correlated order, with mediate and immediate continuity of the particular organs or institutions which unite in the structure of the *ensemble* of the societies.

In fact, the amorphous social aggregate—that is to say, a social aggregate without structure—does not exist. Every society, large or small, the simplest that can be found, has at least that general structure of the whole which consists in the formation of a mass of which the factors are multiple, and of which the elements and properties, derived from the combination of these factors, are arranged and united into a whole, which is at least partly distinct from the environment that surrounds and unites the factors in life and in death. We shall see later that another organic characteristic of every society consists in its being separated from others and from the external environment by a boundary.

The simplest, most general structure of societies may, then, be represented as an aggregate composed of heterogeneous factors, land and population, functioning in a homogeneous manner, and organized merely to this extent, that the many parts are directly or indirectly united to each other and to the whole, and are contained within limits.

If the last condition is disregarded, the social aggregate, considered solely from the point of view of the mass, may then be defined from the static point of view, viz., every combination of land and population whose parts are united together into a structure of the whole, the dissolution of the parts involving the dissolution of the structure and *vice versa;* the same being true in regard to their transformation. The simplest structure thus constituted internally in a homogeneous fashion maintains itself in equilibrium, first, by its peculiar structure; second, by

the relationships of its structure to the external environment. There is, then, both an internal and an external equilibration. When the external environment is likewise composed of social aggregates, there arises, from the very fact of their mutual equilibration, a composite social aggregate which is subject in its turn to similar conditions of equilibrium. From the mere juxtaposition of two or more societies which, as we may suppose, are closed to each other, there result, in every case, intersocial forms and reciprocal actions and reactions analogous to those which are manifested in every social aggregate by the seven classes of phenomena. So true is this that, in order that the entire series of phenomena may be produced as in a chemical laboratory, it is sufficient merely to place the constitutive elements of societies together.

A structure reduced to its simplest, most general expression, that is to say, a structure as homogeneous as a social aggregate can be, evidently remains in equilibrium only when confronted by the simplest internal and external conditions. If new circumstances arise—for example, either a scarcity of game, fish, and natural fruits or an abundance of the same—such a structure is quickly disposed either to go to pieces or to develop. It is necessary in every case that it adapt itself to the new conditions. This is true with respect to relations to external conditions whether they are social or not.

Every social aggregate is thus, so long as it exists, a state, *status* in the broadest sense of this word; that is to say, a structure held in equilibrium. This equilibrium is necessary and constant, although mobile and variable. It is a living equilibrium. This is a social law of the highest generality.

We have just seen how this social equilibrium comes about in its simplest form. It results when a social mass, which is limited by boundaries of greater or less extent, and all of whose internal parts are arranged in mutual equilibrium in a structure of the whole, maintains itself in equilibrium with respect to its environment. The precise object of social statics is the determination of the conditions of this equilibrium. All the antecedent sciences, mathematics, mechanics, astronomy, physics,

chemistry, biology, and psychology, confront the same problem. In sociology, however, the problem is more complicated than in the other sciences. In every case equilibrium results from a certain internal arrangement which is in harmony with external conditions. For example, take an instantaneous view of each of the consecutive positions of a runner. At each moment his body is in equilibrium. At each moment it is in a static condition. At each moment, and with each movement, it is in a state of repose. Even his fall is an inferior equilibrium, a return to equilibrium which has been disturbed by a maladroit adaptation of the internal parts to the external conditions. Likewise in every apparent state of repose his structure is in the dynamic state. Social equilibrium, like biologic statics, is always an unstable equilibrium, always changing; changing because of variations of the environment, or because of the action of the aggregate upon the environment corresponding continually to variations of the structure of the aggregate; also because of variations of the aggregate corresponding to variations of the different social environments.

By virtue of the laws of continuity of the mass, and of correlation of all its parts—laws which we shall explain later—every variation in any one of the parts corresponds to a variation of the whole. The variation of the whole may, moreover, precede, accompany, or follow variation in any one of the parts, but the phenomenon is unavoidable and constant. Finally, when social statics is brought to its simplest conditions, it may be reduced to equations of forces, in the same way as mechanical statics.

Statistics, because it notes the frequency, intensity, and duration of the properties of the social forces, is the natural preparation for statics and its natural instrument. By means of statistics we are able not only to determine the abstract, qualitative conditions of social equilibrium, but also the concrete, quantitative conditions, so that we may measure them exactly. For example, when we learn by means of statistics that the nourishment of the laboring or productive force in the social aggregate, the Belgian nation, is less than the physiological expendi-

ture, we find that this mal-equilibrium is counterbalanced by a wearing out of the tissues, a drain upon the working force, and that this deplorable, regressive equilibration reacts upon the whole social structure, that is to say, upon the reciprocal situation of each of the component parts, affecting all the individuals as well as all material wealth and society in general.

Then, so far, the characteristics recognized in every aggregate as a whole are: a combination of different elements, of properties which are different, but universal, and in this sense homogeneous; continuity; the union of all the parts to each other; their union or correlation with the whole; constant equilibration.

Every society, however simple or complicated it may be, involves at least an organization of this nature. Every society is a superorganism because it is produced by several factors combined, whose combination gives rise to properties of an original character, at least partially different from the properties of the constitutive factors.

According to Herbert Spencer, the character of every social structure will be determined in all particulars by the nature of the component units. He brings to the support of this principle examples borrowed from physics, chemistry, and biology. Thus the begonia, as a plant, is the true reproduction of a single one of its leaves. A crystal, whatever may be its mass, is similar to the little crystals which compose it. This is true, but a society is not the same thing as a zoölogical human being. A vast society composed of many special societies will be the reproduction of the latter on a large scale, but not a reproduction of human units, since, at least according to our view, the human units are not the only factor of society. In fact, the principle of Spencer cannot be applied to cases in which the body considered is the product of a combination of different factors. The product of such a combination is always different in part from each of the component factors.

According to Spencer, social science has for its subject the relations of the units to the aggregates, or, to express the thought in a more precise, concrete way, the relationships of the

individual and the state. This point of view is incomplete. It neglects the inorganic and organic factors which enter into the texture of societies. It creates an antinomy which really does not exist between one of the constitutive elements of society and society itself. It does not take into consideration the characteristics which distinguish societies from individuals, and especially that societies, by the mere fact of their aggregation, are endowed with properties which are possessed neither by individuals nor even by simple collections of individuals. We have noted the principal of these distinctive characteristics, contractualism. Herbert Spencer has therefore not escaped the reefs where Auguste Comte himself was stranded. The former is not successful in proving the legitimacy of the organization of sociology. In fact, very logically from his inexact point of view, namely, the addition of units of the same nature, he is able to discover only the quantitative differences between the individual and society. And, while calling society a superorganism, he nevertheless places himself in contradiction to the very definition of organism given above, viz., a substance may be called organized when it is composed of more or less numerous simple elements, belonging to at least three distinct groups or classes, and united by special combination and reciprocal dissolution. A begonia leaf will reproduce the begonia. A large crystal will be composed of little similar crystals. But ten, one hundred, or more human units are by themselves alone incapable of forming a society, without forming among themselves a combination into which there also necessarily enter inorganic, organic, and psychic elements.

Every social aggregate, as a whole, may be increased or diminished: (*a*) by the increase or diminution of the human units which compose it; (*b*) by the increase or diminution of its mesological elements; (*c*) by the increase or diminution of these two factors combined, that is to say, by the increase or reduction of the social mass itself, of society.

Reduction of these conditions may even result in the suppression of the aggregate. This is the case with Jews, the American Indians, etc. They no longer form a special society.

Their human units and their environment have been absorbed by superior aggregates. Increase or diminution of the social mass is not absolutely of itself progress or regression; but each is a condition which is generally favorable or unfavorable to progress or regression. In zoölogical organisms we see, for example, at the two extremes as regards mass, the ant and the elephant. Individuals and groups of one of these species are almost as intelligent and advanced in civilization as individuals and groups of the other species. The ant and the bee are more intelligent and more advanced than the wolf and the hippopotamus.

Societies which are small in mass, such as ancient Greece, may be superior to vast social aggregates, such as Persia. However, it is necessary to take into consideration that in certain directions these little societies extend beyond their political limits; their activity stops there only in appearance; in reality they extend beyond, and their economic structure, religious structure, moral structure, etc., frequently embrace a world. Such at least was the Greek world.

A large mass, however, offers this potentiality, that, all other conditions being equal, it is necessarily exposed to a very large number of variations. But this is also a factor that may be as favorable to social progress as to social regression, that is to say, it is a factor favorable to a new equilibration, which may be superior or inferior. For example, if the larger aggregate does not succeed in becoming adapted organically to these variations, it will be exposed to dismemberment because of lack of co-ordination. In the place of a co-ordinated organic differentiation, it will present an unco-ordinated differentiation, a dislocation, an inferior state.

Increase of the mass, and also the differentiation of the mass which this increase favors, are not sufficient, then, to produce social progress. A third condition is requisite. It is necessary that the differentiated parts be co-ordinated with each other and with the whole. In this way only will the increase and the differentiation of the aggregate establish a new equilibrium, a state superior to the preceding states.

George Simmel also very correctly expresses the principle that "the sociological structure of a group is essentially modified by the number of the individuals that are united in it," in such a manner that, on the one hand, "certain forms which are necessary or possible from the contents or conditions of life can come to realization only before or after a certain numerical extension of the elements," and from the positive point of view "that other forms are promoted directly through definite and purely quantitative modifications of the group."[1] Thus, according to Simmel, the past and contemporaneous communistic forms have been possible only in relatively restricted circles, and have always failed in the extended groups. Although, in my opinion, true socialistic forms appear at the present time in the large capitalistic societies, and even in world-wide relations—an important phenomenon which has escaped the observation of Simmel—his principle is relatively correct, and we ourselves have indicated that quantitative development is generally a factor in variations, in qualitative differentiations. However, Simmel, like Herbert Spencer, takes into consideration only the human units in the texture of societies, and not the other equally essential factor, from which results the inorganic, organic, and psychic combination which is indispensable to every social form. From the quantitative point of view, this other factor has likewise influence upon the qualitative social structure.

CHAPTER IV. THE SOCIAL LIMITS.

Auguste Comte devotes the seventh and last chapter of the second volume of the *Système de politique positive* or *Traité de sociologie instituant la religion de l'humanité*, in which he sets forth *social statics* or *the abstract theory of human order*, to *the positive theory of the general limits of variation characteristic of the human order*.

This problem of the limits of social variations is one whose preliminary solution is indispensable to a clear distinction between social statics and social dynamics; it is the frontier line where statics and dynamics meet and become intermingled.

[1] "The Number of Members as Determining the Sociological Form of the Group," AMERICAN JOURNAL OF SOCIOLOGY, July, 1902.

Auguste Comte understood this very well. Accordingly, on account of the importance of the problem, he has devoted the last chapter of his *Statics* to its study, as a transition to dynamics. His successors, absorbed in unilateral points of view, seem to have completely lost sight of the question. This is true of the representatives of both the biological and the psychological schools of sociology; and yet, guided by biology and psychology, sciences in which this problem is one of the fundamental questions, they ought to see *a priori* that the same problem presents itself, under special conditions, to sociology.

For other reasons than those which led Auguste Comte to end his *Statics* with the study of the limits of variation, we believe that we should make this subject the first problem of the general structure of societies, after that of the social aggregate considered as a mass, with which we have just been engaged. We consider it at this point for reasons of methodology. In fact, in order to form a correct idea of a superorganism, such as the social body, in a static state, it is necessary, in the first place — while passing from the simplest cases relating to the constitutive factors and, consequently, first of all, to inorganic nature, and advancing gradually to the more complicated and more special cases relating to biological organisms with their biopsychic derivations, and finally to social superorganisms — to determine what are the general and special conditions of equilibrium of each of these natural states or aggregates, and, above all, what are the conditions which at any moment limit and determine their mass and their forms. We have already indicated certain general conditions of their internal equilibrium from the point of view of the mass. It is now necessary to complete these ideas by bringing to light the relationships which result from these internal and external conditions, and to show what are the constant, necessary limits within which this equilibrium may oscillate or vary. We shall see that this study of the limits of variation in general will lead us to the philosophical interpretation of the more special case of the social limits of variation, and of the most particular case of all, the limits of variation of the so-called political boundaries of societies. May

the reader who does not cast this article aside pardon me for the unavoidable imperfection of this attempt, an imperfection which is inevitable because of the newness and difficulty of the undertaking. Others will smooth and enlarge the way which I have thought necessary to open to the researches of sociology.

The equilibrium of any aggregate is never absolute. It is a relative equilibrium, resulting from certain relationships among the elements of the internal structure and from certain relationships between these elements and the external environment. The structure and the life of a society are a more or less complete harmony of the elements of the society with the whole, and of this whole with the external world. The point is to explain how societies maintain themselves as structures, in a state of equilibrium of all their parts, either in the presence of other societies or merely in the presence of their external environment, which is itself not social, although likely to become so. Thus the sea and the desert, which at first may be isolating external environments, may be transformed into internal or external social environments as soon as they become thoroughfares and are integrated into a social combination by fusion with the human factor. What are the natural limits of the structure of societies considered in their *ensemble*, and what are the equally natural limits of the many organs, groups of organs, and systems of groups which are united together in this structure of the whole?

Auguste Comte, following the method (chiefly subjective and deductive) adopted in the *système de politique positive*, approached the theory of the general limits of variation characteristic of the *human order* directly, without a preliminary study of special sociological limits. The general law of the latter can, however, be only the conclusion and the expression of those special conditions relating to the economic, genetic, æsthetic, scientific, moral, juridic, and political order. On the other hand, we shall persist in the course followed up to this time of proceeding from the particular to the general, from the simple to the complex, from the concrete to the abstract. We go further: according to us, the problem of sociological limits is comprehensible and

solvable only after a preliminary view of the same questions in the inorganic and organic order, both concrete and abstract.

Besides, the conception of Auguste Comte (still more that of Quetelet) is also too largely mechanical and physical; and precisely for this reason it will be well to accustom ourselves to the truly natural conception of social statics by the study, directly from the point of view of the limits of variability, of the organic forms of which the societies are a continuation and a development, and in which statics assumes the special and more complicated form of structure. As for Herbert Spencer, in consequence of a natural and legitimate reaction against the old conceptions, he has been dominated too exclusively by the evolutionary aspect of societies and things in general, and seems to have completely neglected this fundamental aspect of the social equilibrium, this primary condition, this *sine qua non* of every organization.

We do not pretend, however, to develop a general philosophy of the structure of societies, nor even a theory of the limits of social variation. We even believe it impossible to succeed in an attempt of this character, in the present state of our knowledge, and with our imperfect instruments of investigation. Knowing all this, we shall dwell principally upon the order to be followed in these studies. It is method which will especially engage our attention. Only secondarily, as in the first two parts of our *Introduction à la sociologie*, shall we permit ourselves to state general, abstract conclusions. Even at this time sociology has a primary desideratum to realize, namely, a recognition of *what are the principal problems to be solved by it.* This object is far from realization. The best proof that this is the case is the almost complete neglect of the fundamental problem which we shall now undertake, as far as possible, to elucidate.

SECTION I. MATHEMATICAL LIMITS.

All phenomena are at first presented to our consciousness in their simplest and most general aspect, as more or less numerous, as occupying a space more or less extended, as simultaneous in duration or successive in time. In the field of

consciousness, the object is distinguished from the subject by the primary sensation of size or extent, which arrests our attention, and, by this resistance, at the same time traces relationships, limits, and a distinction between the *me* and the *not-me*. From the mathematical point of view, the simultaneous or successive order of the appearance of natural phenomena, whether physical, vital, psychic, or social, is subject to laws which the theory of probabilities makes known to us. The basis of this mathematical theory is that the quantitative variations in the appearance or disappearance of phenomena are limited by the conditions or chances which are favorable or unfavorable to the production of the phenomena. Thus, if six hundred balls, of which four hundred are white and two hundred black, are placed at random in a ballot box, the law of the appearance of the balls will be as four is to six or as two is to three. It is apparent that the variations in this case are limited by the very law of probabilities.

When the chances are limited and always the same, the problem is easy. The mathematical probability is estimated by dividing the number of chances favorable to an event by the total number of chances. Thus, in the example given above, the probability of the appearance of a white ball is $\frac{400}{600}$, or $\frac{2}{3}$; that is to say, the chances are two divided by three that a white ball will come out. The variations will be so much the less frequent as they differ more from this norm, from this mathematical limit.

The problem becomes more difficult when the task is to investigate what are the chances of the reappearance of a periodical phenomenon which has been observed many times in succession. Then the probability is great in proportion as the number of times that the event has been observed is increased and as our previsions extend a short distance into the future. With these conditions, in order to calculate the chances of the reappearance of the phenomenon, the number of observations increased by unity is divided by the same number increased by two units. If, for example, we have observed for ten successive days the periodical rising of the sun, the chances are eleven

divided by twelve that we shall see it rise again the eleventh day. If the periodical return of this phenomenon has been observed one thousand times, the probability will be represented by $\frac{1001}{1002}$. It is apparent, therefore, that after centuries of repeated performance the probability must be equivalent to a certainty and that the contrary event would be considered miraculous.

The difficulty increases and becomes enormous when we have to deal with complex facts, and especially with social facts. By themselves, the seven classes of social phenomena, considered as distinct groups without subdivisions, give rise to 127 combinations of classes. It is apparent, therefore, that the relationships which may be produced by the phenomena included in these classes are so nearly innumerable that they cannot be exactly calculated, although we can say that the possible variations of these relations are not unlimited. Nevertheless, from the mathematical point of view, whatever may be the character of the observations, the results observed do not fall indiscriminately on the two sides of an average, but in determined order, which is that of the scale of possibilities. The nature of this scale is determined by the number of the observations. The more numerous the latter, the more nearly they approach the average, and the relatively fewer variations or errors will they contain. If, for example, I measure the height of a mountain, and if my first estimates vary between nine hundred and eleven hundred meters, the more frequently I repeat my measurements the larger will be the number of the estimates that border upon the average of one thousand meters and the less numerous will be those which deviate from it.

In arithmetic as well as in geometry the field of observation and of variation is limited. One can form an idea of a magnitude only by comparing it with another known, limited magnitude, unity. Numbers are, then, the relationships between this known unit and a magnitude to be known. "Every number,' said Newton, "is the relationship of a magnitude to unity." Arithmetic is, then, the science of the *measurement* of magnitudes. Measure means limit; unity, which serves as the stand-

ard, is limited; the magnitude sought is equally so. In the same way, geometry is the science of the measurement of extent. For example, a straight line is defined as the shortest distance between two points. This definition indicates a constant, necessary relationship between two points which serve as limits. There are, then, mathematical limits in the estimate of all natural phenomena. As we are unable to form a correct idea of infinite space, or of infinite numerical quantities, without at the same time using finite measures and quantities, all observable phenomena are, from the mathematical point of view, conditioned and limited. All may be reduced to the calculation of probabilities. This amounts to saying that they have an average which constitutes their normal equilibrium, an equilibrium whose variations are limited in the sense that they decrease in proportion as they depart from this average. *From the mathematical point of view, and as far as phenomena can be exactly calculated and measured*, Fourier, Laplace, and Quetelet were right: all things, including social phenomena, can be reduced to averages.

When we apply the calculation of probabilities and the theory of averages to social facts, in order to reveal the *social order*, we must not, however, lose sight of the fact that these probabilities, these averages, can be applied only to homogeneous things, and not to heterogeneous phenomena. Now, the social structure is formed of unlike elements. In sociology, therefore, the theory of averages and of probabilities can be applied only to the categories of similar facts. It is inapplicable to the organic structure of either special societies or society as a whole; that is to say, to combinations of heterogeneous elements in organized wholes. Except from the point of view of number and extension, these organic combinations elude statistics and every mathematical theory.

Nevertheless, by co-ordinating the averages of each class of social phenomena in definite limits of space and time, we may obtain statistics summing up, at a fixed time and for a given territory, the elementary statics of a particular civilization. However, this statics, based upon statistics, will be insufficient to explain structure. Structure involves the higher idea of a

qualitative arrangement of organs which are united to each other for the use of a whole. It is necessary to add that the averages may vary widely in different epochs and civilizations. The average man, even from the point of height, does not exist unless the average is taken of one population. When the average is taken of all the heights at a given time and at a definite age, the larger number will not correspond to this average. In sociology, the constant, and especially the variable, conditions are so numerous and complex that they largely escape from the calculation of probabilities and the theory of averages.

It is somewhat interesting to note that Gumplowicz, while making a criticism of Quetelet—a criticism which was in part justified—really fell into a similar error. In *La lutte des races* he wrote :

> When Süssmilch, in 1742, imagined "*a divine order in the vicissitudes of mankind*," the statisticians began to observe the regularity of the movements of masses. However, in their observations, they took as a unity the first mass of population, *politically bounded*, which presented itself to their minds : the inhabitants of a city or of a state. These are not natural social units. Here is certainly the principal reason why the statisticians have not succeeded, in spite of their researches, in discovering universal laws. It is true that, for some time, statistics has manifested a tendency to specialize its observations, that is to say, to seek after the natural elements of these political bodies with a view to subjecting them to examination. It is because of this tendency that there has been a departure from political statistics to what is called *ethnographical statistics* (Wappaüs, Czörnig, Adolf Ficker), Quetelet did not contribute to this progress. Giving his attention only to *society*, a vague and nebulous notion, he arrives at the *average man*. This *average man* is a result of calculation, but of nothing else. In fact, it is not upon a society realistically considered that Quetelet founds his observations, but upon political bodies, such as cities and states. He is thus able to arrive only at chimerical laws governing the *average man*. These are not laws. Modern *ethnographic* statistics itself is only transitory. It prepares the way for a statistics which will take for its subject also the true ethnic or social units, and will succeed in this way in the establishment of true laws of the life and movement of the masses (an end which can be attained only in this way).

Unhappily, the author recognizes that his ethnic unity is not an idea of natural science, but is only a *historical idea*. Consequently, the criticism he makes upon Quetelet for looking only at states rebounds upon himself. In reality, states, as well as

races, are historical and natural formations. The author states that "at the present time races, in the sense that natural science attaches to this word, no longer exist," but "one may very well designate by the name of race *those ethnic and even heterogeneous social groups and communities*," and he specifies by adding that the race "is a *product of the historical process* which is, moreover, for it also a natural process." But, then, is it not in the same condition as states, and what is this unit which must serve as a measure, and which is composed of heterogeneous elements?

If, then, we reject the mathematico-statistical theory of Quetelet in part, that is to say, so far as it is inapplicable to the organic forms of societies, it is for more essential reasons than those indicated by Gumplowicz, reasons which involve the condemnation of the latter's own doctrine.[1] It is nevertheless true that all facts considered in themselves from the mathematical point of view have natural limits of variation, from the standpoint of both number and of extent, precisely because every number is limited, every extent is fixed and circumscribed. The simplest formula of the limits of variation and of equilibrium is, then, a mathematical formula.

SECTION II. MECHANICAL LIMITS.

As we have already seen, the idea of force, like that of number and of extent, is a relative and limited idea. It supposes at least the existence of two bodies more or less extended, whether atoms or worlds. From this simple coexistence of two bodies there naturally arises a relationship which manifests itself through a movement, through an equilibrium. Equilibration as used here necessarily denotes every movement which tends to produce or to destroy an equilibrium. Equilibrium must not be confused with the state of inertia. In every equilibrium there is movement. Only a relative immobility can exist between two bodies when their force is arrested. There is not an absence of movement, but neutralized movement. Such is the state of rest produced by the fall of a body to the surface of the earth.

Mechanics is the measure of forces. It gives us directly the

[1] For a discussion of this subject, see my observations in the work in preparation upon the static theories of Quetelet, Comte, and Spencer.

idea of statics, of a state of equilibrium. In fact, mechanical statics shows us the conditions of equilibrium of any system whatever. It is natural enough that economists, political theorists, and sociologists have attempted to reduce the scientific explanation of societies to purely mechanical laws; likewise, that others have tried to reduce it to purely mathematical laws. This historical process is logical, but these explanatious, precisely because of their too general and too abstract character, go outside of the sociological domain, and are insufficient. They are comprised more properly within the subject of general philosophy. They can and must be used by general philosophy, but not by the special philosophy of the social sciences.

Nevertheless, it is correct to include under the denomination of forces, not only the *mechanical* properties, but also the *organic* and *superorganic* properties of matter. In order to examine the problem of social equilibrium, it is necessary, first, to have the idea of mechanical equilibrium as it presents itself in inorganic matter; then, to pass to organic matter; finally, to pass to superorganic matter.

It is to be remarked that the transition from one of the lower of these three different forms under which matter presents itself to the succeeding higher form is effected in an uninterrupted manner, by insensible degrees, and not by abrupt leaps. In a word, it is an evolutionary passage from the one to the other. It follows that, in the lowest forms of organisms, equilibration is still *preponderantly* effected among forces which are chiefly mechanical.

Let us recall that mechanics rests upon three fundamental principles or properties of matter, principles which are demonstrable by experimental observation, and which are involved in every industrial application of mechanics. These principles are: first, *the law of inertia;* second, that of *the independence of the effects of forces;* third, that *action and reaction are equal.*

The first is sufficiently known; as to the second, it expresses that the effect of a force upon a body is always the same, whatever may be the velocity of the body, and whatever may be the other forces which impel it. If the body changes, the effect

varies accordingly. This principle is applicable not only to the purely mechanical forces, but also to the properties of inorganic, organic, and superorganic bodies, in so far as these properties result in the modification of the state of repose or of movement of the elementary parts. The sociologist, while studying social statics and dynamics, must always take into account that *every force* applied to a body always produces three different effects:

First, a certain increase of the total velocity.

Second, a certain total deviation.

Third, an instantaneous increase of velocity, or acceleration.

In sociology, as well as in mechanics and physics and elsewhere, matter and force are abstract concepts of properties which alone are known to us. The essence of force and matter is confused with their effects. Through the latter alone, force and matter exist for us. It is by the effects alone that we are able to measure them, to compare them from the point of view of the third effect, acceleration. If different forces are necessary in order to produce the same acceleration in the movement of different bodies, the conclusion will be that these bodies offer an unequal resistance. Mass may then be considered as the measure of the resistance to the movement. As to the law *action and reaction are equal*, it implies that in nature no force exists in isolation. For every force whatever there always corresponds another force which is equal to it, and which has an opposite effect.

SECTION III. ASTRONOMICAL LIMITS.

The astronomical bodies have limited structures, limited movements, and influences which are correspondingly limited. Our globe is far from being homogeneous. Its mass is differentiated into parts whose frontiers are quite distinct. Its center is in a melted state. A solid envelope formed of superposed layers follows. This superficial crust, which is of relatively slight thickness, since it equals scarcely a thousandth of the terrestrial diameter, is the inclosed field upon which all organic beings vegetate and live. This limiting envelope is the result of relationships between the inorganic terrestrial aggregate and the external factors, astronomical, atmospheric, climatic, etc. The

actual earth is a globe, having a radius of about 1,600 leagues, situated 37,000,000 of leagues from the sun, around which it revolves in 365 days. Its axis is inclined 67° to the plane of the ecliptic.

These form-limits of the earth result from relationships, past and present, between the internal mass in the course of its evolution and the external conditions, among which, and under the influence of which, these forms have been realized. Among the external forces which have contributed to limit the earth, and therefore to give it its general form, it is necessary to point out especially the other planets of the solar system. The limitation of the structure and movements of the solar system itself depends upon a vaster system. Moreover, since the discovery of Neptune, the frontiers of the solar system, becoming better known, extend more than one thousand millions of leagues. The movements, like the forms of the earth and the planets, are limited movements. All the planets move around the solar mass, executing at the same time rotary movements upon their own axes. All travel their eliptical orbits according to a general law of proportionality of the areas of portions of the elipse traveled over successively by the straight line which joins a planet to the sun, to the time employed in the traveling. The earth is a spheroid surrounded by a mass of air. This atmosphere is its real external covering, a covering which likewise is limited by the nature of its own internal composition, in relationship with the terrestrial mass and by the nature of bodies exterior to the atmosphere. Each of the many geological strata, in its turn, is limited by its internal constitution in relationship with the external strata. The earth and the celestial bodies in general are, then, formations limited in their structure and their movement in consequence of the reciprocal action of external forces upon central masses; their equilibration results from this reciprocal action.

Upon the structure and the equilibrated movement of astronomical bodies there are dependent other special structures and movements which are likewise equilibrated. For example, the structure and the movement of the earth determine the distribu-

tion of the climates in five zones: a torrid, comprised between the tropics; two frigid, limited by the polar circles; and two temperate zones, contained between the tropics and the polar circles. The structure and the movement of the earth also divide the year into four seasons. All these general limitations have in their turn relationships with the structure and the life of organized beings, including those organized into societies.

SECTION IV. PHYSICAL AND CHEMICAL LIMITS.

Nothing seems to limit the dimensions of inorganic compounds. They are, however, formed of particles. Thus, although water has no texture or visible structure, it is nevertheless formed of distinct molecules. There exists between these molecules a resistance which separates them. This resistance arises from their thermic state, for when one heats water or makes it cold it passes into vapor or becomes ice; that is to say, its molecules acquire less or more cohesion. All unorganized bodies may take definite forms and augment their volume by the addition of similar parts. Each crystallizable substance has its characteristic crystalline forms. It never deviates from certain clearly defined geometrical forms, whatever may be its mass. Enlargement is always effected by adding to the exterior of the body similar parts which previously existed apart from it. Crystals, the most perfect inorganic bodies, are composed exclusively of a homogeneous substance. All are limited by plane surfaces which break following straight lines and constant, measurable angles.

As examples of the law of physical limitation, we may cite in crystallography:

First, *the law of symmetry:* When a crystal presents upon one of its elements (angles or edges) a certain modification, all the other elements crystallographically similar are modified at the same time in the same way.

Second, *the law of derivation:* If a modifying face intercepts upon the edges of a crystal of the dimensions x, y, and z, every other face placed upon the same element will intercept upon these edges according to dimensions x', y', and z', which wil[1]

satisfy the law that: the ratio $\frac{x}{x'}$ is in simple relationship with $\frac{y}{y'}$ and $\frac{z}{z'}$, so that $\frac{x}{x'} = m\frac{y}{y'} = n\frac{z}{z'}$, m and n being whole numbers or simple fractions like 1, 2, . . . ½, ⅓.

Whence results this form, these numerical limits? They are the product of two factors: first, the internal formative force inherent in the physical and chemical constitution of the matter itself; second, the external formative force which is the expression of the influence of the surrounding matter. The concurrence of these two forces, their reciprocal relations, determine the form and the volume of inorganic bodies, their composition and their decomposition, their actions and their reactions. The equilibration of these forces is the consequence of the relationship which exists between the structure of the bodies thus limited and the environment.

Physics and chemistry show us in a general way that the solid, liquid, and gaseous substances which compose the terrestrial globe are not indiscriminately mingled: the rocks, the liquids, the gases occupy definite, limited spaces. They show a certain order in their static disposition; this order and these limits are the conditions of their equilibrium.

Thus, just as our solar system gravitates around an unknown center, and just as in our system the planets gravitate around the sun, we also see all the bodies upon the earth equilibrated about its center by gravitation, and all the molecules of inorganic aggregates equilibrated differently among themselves, according to their different conditions, under the name of molecular attraction. In the same way, also, all the chemical modifications are the result of molecular equilibrations determined and limited by reciprocal relationships. Thus, the general law of limitation appears to us as inseparable from the very conception of aggregate or mass.

Chemistry, by showing us atomical and molecular equilibrations of greater and greater complexity, prepares us for the consideration of a new aspect of statics. The law of definite proportions, and that of multiple proportions, are examples of chemical limits. Indeed, it will remain with us to see whether

this law of limitation extends to the organic, psychic, and social world. In the first place, chemistry shows us especially that, in proportion as the combinations becoms more complex, they become more and more susceptible to modification by physical influences and by the actions and reactions of the atoms and molecules among themselves. Every new combination formed by the intrusion of atoms or of molecules into the environment of an existing aggregate must necessarily modify the equilibration of the aggregate, in its structure and in its movements, and give rise to a different equilibration. In general, the simple bodies are the most stable; for the most part, they resist all reagents. Carbon (diamond) is extremely stable; the compounds are less stable; the implex compounds are still less so. Experience demonstrates the increasing instability of compound bodies. This characteristic is manifested with a maximum of intensity in those organized bodies whose states of equilibrium are so varied and so variable that chemistry has not yet succeeded in determining the nature of many of the products of the higher combinations out of which life arises.

SECTION V. BIOLOGICAL LIMITS.

Organic matter is limited.

Its fundamental property, its characteristic force, is a constant tendency to a more and more complete adaptation to all the forces of the environment. In the lower stages, this natural tendency is favored by the division of the matter into portions with very small surfaces. Such division, augmenting the *whole boundary surface*, extends the field of activity of the matter, inasmuch as the vital energy is first exercised in a quasi-general manner on the *external surface*. Consequently life—that is to say, the sum of all these activities—augments when the organic matter is subdivided into very small particles. However, these considerations do not appear applicable to the higher forms of matter.

From the morphological point of view, the sphere has the inclosing surface which limits the maximum volume. This principle may be placed in relationship with two other theorems. According to the first, as stated in the capillary theory of

Laplace, every liquid withdrawn from the capillary forces exercises upon itself, by virtue of its cohesion, a normal pressure on the free surface, a pressure which is equivalent to a constant quantity augmented by the product of the average curvature of the surface, at the point considered, by a constant factor which depends upon the nature of the liquid.

$$P = K + \frac{1}{2}\left(\frac{1}{5} + \frac{1}{5}\right).$$

The second theorem, stated in the memoir of Z. Plateau upon the phenomena which result from the withdrawal of a free liquid mass from the influence of gravitation, shows us that the mass thus left to itself assumes the form of a sphere, which then constitutes a form of equilibrium. In fact, in a sphere, since the curvature is the same on all sides, the pressure which is mentioned in the theorem of Laplace is exercised on all sides, and the mass is in equilibrium.

The sphere is, then, a state of equilibrium between certain internal forces and other external forces. Applying the principle that a spherical surface limits the maximum volume, and the two theorems of Laplace and Plateau to inferior organisms, we ascertain, in the first place, that the conditions required for the application of these principles are to be found in organisms. According to Häckel, organisms in general are largely composed of water; the body of a man contains 70 per cent. This large proportion of water is especially remarkable in the case of the jelley-fish, which, according to the same author, contains 99 per cent. One may, then, without sensible error, liken such an organism to a liquid mass. Moreover, these inferior organisms floating in the waters of the ocean are removed from the influence of gravity. The principle of the maximum volume in a limited surface, and the two theorems of Laplace and Plateau, are, then, applicable to the inferior organisms. That of the maximum volume is in direct correlation with the natural tendency of matter to store the most life possible within the least surface. We may conclude that the surface limiting the elementary organic matter is clearly the result of an equilibration between internal forces and the most general forces of the environment.

If, now, in consequence of accidents, or in pursuance of their natural tendency, certain inferior organisms, overstepping their limit of energy, assume a form deviating from the spherical form, and consequently approaching the cylindrical form, they will be immediately subdivided into several spheres. For another theorem demonstrated by Plateau is this: A liquid cylinder, withdrawn from the action of gravitation, becomes unstable and subdivides into several spheres, as soon as its length exceeds the circumference of its cross-section. This theorem may explain, in part, from the mechanical point of view, the reproduction of inferior species by simple division. This occurrence would be first produced accidentally and would be repeated because of its utility.

The preceding shows us the natural relationship which unites the laws of inorganic equilibrium to those of organic equilibrium. However, the latter presents some special characteristics which it is advisable to elucidate, and which in their turn prepare us for the interpretation of social statics.

Vegetables and animals are composed of the same elements that enter into the composition of inorganic matter, but these elements are assembled in combinations which are not found in inorganic matter. There is an essential substance, composed of water and proteid substances, fat, carbohydrates, and minerals, which enters into the texture of all plants and animals *in life*. This substance is protoplasm. Protoplasm is a juxtaposition of divers proteid substances (albuminoids). In order that protoplasm may have life, it is necessary that it be intact and absorb water. While nothing limits the dimensions of inorganic combinations, such as crystals, every protoplasmic mass, as soon as it attains certain dimensions, divides itself spontaneously into several distinct masses equivalent to the mass from which they originated. Protoplasm exists, then, only in the form of individuals having a limited size. This is why all the living beings are necessarily composed of cells or of a society of cells.

In contrast with inorganic bodies, living plants grow by adding to the substances which constitute them similar sub-

stances which do not come exclusively from without. These latter substances are, on the contrary, manufactured in the body of the plant by the aid of more simple materials borrowed from nature. This is a new point of view which is destined to throw light on the sociological problem. The growth of the plant consists in the addition of a definite structure, as in the case of the crystal, but the plant grows by interior addition. One finds neither in the soil, nor in the water, nor in the air the compounds characteristic of the mass of the plant: albumen, gluten, starch, cellulose, and fatty matter. All the crude inorganic materials in them are furnished, however, by the atmosphere and by the soil: oxygen, nitrogen, carbonic acid, ammonia and water, argil and silica, lime, iron, potash, phosphorus, sulphur, etc. The plant divides all this primary material into different portions, in order to assimilate them, and to reunite them into new combinations at the interior of its structure-manufactory, where the new molecules distribute themselves among the old ones.

This is not all. In contrast with minerals, plants continue their development until a portion of their substance is detached in the form of seed or germ, and thus they reproduce their species. The same is true of the living animal. It is necessary, however, to note that most of the substances which the animal assimilates are provided directly by other animals and by plants. The animal also detaches a part of its substance, the egg, which gives birth to a similar animal.

The form of every animal and of every plant is, then, the product of the same relationships that we have indicated for the crystals. It results from the equilibration between two factors, the one internal, the other external. There is only this difference: the equilibration is more complex. The internal factor adapts itself spontaneously to the more special conditions, from which results life.

Consequently, it is easy to understand that, in the inferior forms of life, the individuals are not distinguished from the species, any more than the crystals are. They have no individuality. Thus, in the kingdom of protista, intermediate between the vegetable kingdom and the animal kingdom, and including

especially the monera and the rhizopods, the salient character of conformation, according to Häckel, is

> the invariably totally inferior development of their individuality. Numbers of protesta are, during their life, simple plastids, individuals of a primary order. Others, by combining together, form colonies of plastids. But even these individuals, although somewhat superior, remain for the most part at a very inferior degree of development. The inhabitants of these communities of plastids invariably resemble each other very much; with them there is only a very slight division of labor; consequently, their social organism is as incapable of elevated functions as that of the savages of New Holland. Besides, the union of the plastids is ordinarily very loose, and each of them always retains in a large measure its personal independence.

We observe that lack of individuality corresponds to a great personal independence, and that, with all living beings, social progress can, therefore, naturally be conceived as coincident with the development of individuality parallel to increasing solidarity. In spite of appearances to the contrary, individuality and solidarity are not contradictory, but the latter is the condition, the support, of the former.

At first sight it seems that the limits of morphological variations in the organic world are less precise than in the inorganic world. In contrast with crystals, the animal and vegetable forms appear to exclude all geometrical determination. They are ordinarily limited by curved surfaces intersecting in curved lines and at variable angles. Even from the point of view of geometrical lines, however, the radiolaria and many other protista are not different from crystals. Their forms may likewise be reduced to definite mathematical forms, limited by constant, measurable surfaces and angles. There are even absolutely amorphous organisms, like the monera, the amœba, which change their forms at each instant. Their forms are as indefinite as those of amorphous inorganisms, uncrystallized rocks, precipitates, etc., whose structure is nevertheless determined by the most general laws of mechanics. In general, however, every organic structure is limited. Every structure, in its double aspect of mass-limit, is in a constant equilibration with the environment which furnishes the materials that enter into its composition and support its activity. There is this difference, that in every vegetable or animal organ-

ism this variable equilibration is the result of an internal elaboration, which continually modifies both the materials borrowed from the environment and the structure, as well as the functioning resulting from the superior combinations produced by this assimilation and this elaboration. Every organism is not only limited in its structure at any period whatever of its growth, but even this evolution is limited:

> First, by their very perfection, the organisms come to be no longer susceptible to change in the presence of new conditions; for example, the horse, having now only a toe. His species would perish, if he were able to subsist only by a new modification of the feet.
>
> Secondly, at every epoch, there has been on the surface of the globe a category of predominant organisms, very perfect and not without descendants. Nevertheless the aristocracy of the subsequent epoch never springs from the preceding aristocracy, but always from unfinished types, from characters which are still simple, and which have retained a structure susceptible of varied adaptations.[1]

Later, while studying the social types, we shall see that the essential variations of these types are likewise limited in such a manner that it is always possible to reduce them to a few characteristic types. We shall show that this conclusion, which presents important analogies with the *theory of limited variability* set forth by Geoffroy Saint-Hilaire in his *Histoire naturelle générale des règnes organiques*, must be based upon the fact that, the social material being limited, the many combinations which may arise, although incalculable in the present state of our knowledge, are also necessarily limited. This is a new explanation of the *law of the apparent return to the primitive forms*, which must be limited, as in zoölogy, by this other law that evolution is not reversible, although this latter law may be far from being so rigorous in sociology as in zoölogy. Finally, our theory of the limits of social variation is totally different from the theory of form-limits of A. Loria and other sociologists.

The primary form resulting from this continual equilibration of organized matter is the consequence of this rudimentary general necessity. It manifests itself by the appearance at the sur-

[1] A. LAMEERE, *Le transformisme.*

face of the organic mass of a covering or membrane more or less distinct from this mass. This is the first and fundamental differentiation of every organism. The succeeding differentiation is the formation of a nucleus in the little mass of protoplasm.

G. De Greef.

Brussels, Belgium.

[*To be continued.*]

A STUDY OF SOUTHERN COTTON-MILL COMMUNITIES.

CHILD LABOR. THE OPERATIVES IN GENERAL.

THE strenuous bitterness with which a majority of the cotton manufacturers in Georgia have for several years fought the passage of a statute prohibiting the employment of children under twelve years of age in factories, mines, and similar places of labor in this state is scarcely to be taken as a trustworthy gauge of the sentiment of southern employers at large.

It is true that up to the present time only four southern states have stood in line with the twenty-two representatives of other sections as having legislated in this direction. But it is only fair to bear in mind that the necessity for such enactment did not arise in this section so early by several generations as in the manufacturing East or the mining West. Twenty years ago there were in all the cotton states only 667,000 spindles, which converted but a meager fraction of this region's great staple into yarn. That number has since been multiplied more than ten times, making approximately 7,000,000 spindles now in operation here. The growth of the industry has been so phenomenal that legislation along related lines has failed to keep pace with it.

Yet one who studies closely certain sociological and industrial phases of the situation must feel convinced that, despite the recent defeat of the child-labor bill before the Georgia legislature, child labor itself is destined to prove but a temporary expedient in the southern factories. Not only is the sentiment of the people at large quite as much against it, after less than a score of years' trial, as was the sentiment of the New England states when more than one generation had fairly grown up in their mills, but there are also practical agencies militating against the system and proving very powerful in co-operation with moral and civic considerations.

The Labor Commission of North Carolina has issued an official report, in which it is set forth that, while in 1895 there were 6,046 children employed in the factories of that state, there were in 1899 only 3,308, of which number 1,694 were boys and 1,614 girls. During the four years in which this decrease of 50 per cent. in child labor was taking place there was an increase of 50 per cent. in the number of women and 100 per cent. in the number of men similarly employed, to meet an increase of nearly 40 per cent. in the number of spindles. Were bureaus of labor already established in each of the cotton states, it is reasonably certain that reports of kindred significance would now be issuing from them; for the situation in one of these states is much the situation in all the others.

The restriction of child labor by law is looked to as an early probability in North Carolina, but that has had nothing to do with the remarkable decline shown in the commissioner's figures. Nor are we such Utopians as to attribute the whole of this gratifying result to the strong aversion exhibited by some of the most influential manufactories, as notably the Erwin Mills at Durham and the Caraleigh at Raleigh, to that which is the most cruel form of slavery. Other active causes have been at work; economic considerations are potent factors here as elsewhere.

Manufacturers in this part of the country, as in Massachusetts or Illinois, are learning the lesson that it is a false economy, with expensive practical as well as ethical results, which prompts the employment of the low-priced labor of children. Delicate machinery operated at high speed demands more intelligent and steadfast attention, to secure the best results, than untaught and usually careless childhood can give it. The direct loss thus involved counts heavily in the course of a year, and comes to be weighed comparatively as the adult labor of a section grows more skilful and satisfactory; nor are clear-headed mill men slow to discover that such loss, estimated closely, is by no means compensated for by the low scale of wages to the child operative.

With all these considerations before him, one must arrive at the satisfactory conclusion that child labor in the factories of our

country is a rapidly vanishing evil. From such a conclusion it is not unnatural to desire to pass on to a study of the homes and the family life of the mill operatives throughout the new manufacturing South; and to the student of sociological problems a few weeks or months spent in the factory towns will prove rich in results.

Having visited a score or these interesting communities in different cotton states, I find myself still drawn back to them by haunting suggestions of unexplored phases in the social life, domestic order, industry, education, or moral codes of their people. It is a many-sided matter that we touch when we discuss the homes and the home-living of the world's toilers. Nor will conscience be slow to protest against any hasty judgments concerning a life into which we come only as an exotic element.

I find points of distinct difference between the factory operatives of the South and those of any other section of our own country, or even Europe.

In the first place, there are no urban instincts in these southern mill communities. Whatever virtues they lack, at least they have not the vices of cities. The good and the evil in them are still such as belong to a strictly rural people. But no one must expect after another decade and a half to find the same thing true; for with the passing of the present generation this unique characteristic must of necessity be largely lost. Gregariousness of living is potent to efface such a mark even when deeply stamped.

It may be asked: What are the indications of this quality which, for lack of a better word, is named "rusticity"? The signs are many and easy to read. No observant person can miss the plain evidence even in his first day with the mill people. He walks past the cottages row on row, and sees prince's feather and bachelor's button growing in the tiny yards, patchwork quilts sunning from the windows, and strings of red pepper festooned on the back porch. The boys are quite often chewing tobacco, but they are not smoking cigarettes. Often, alas! the girls dip snuff, but they do not lace in their waists nor attempt handkerchief flirtations. The women are given to quiet, and a

profound reserve usually marks their social intercourse. The festive gatherings in the "amusement halls" on Saturday nights are either stiff parties or genuine country dances. The "barbecue" is common on a general holiday, and the "all-day singing" of a Sunday still remains the acme of enjoyment, affording the perfect blending of sociality and devotion.

One might go on indefinitely with such signs. But since this matter will be encountered again when we arrive at the discussion of education and social life among the operatives, we leave it without attempting to adduce other convincing proofs of their rural proclivities.

A second quality differentiating our people from the northern factory communities of today is what may well be called their unmodified Americanism. Up to the present time there is an entire absence of the foreign element of population among them, and the effect of such absence is very marked. Not only do better manners prevail in this people sprung from our own soil, but better morals, greater social purity, less turbulence and lawlessness. Observance of law is easier, more natural, even to illiterate Americans, than to other nations, because law has typified to them from childhood the majesty of right, not the tyranny of might.

The finer respect for women which marks American manhood extends also to these toilers. Except among their very lowest, motherhood inspires the regard it meets in other social classes; and, while in many of the mills the number of female employees exceeds that of males, yet in few of the better kind are there any mothers of young children at work.

These considerations lead at once to the questions: Where does such a class of labor come from? What are its antecedents?

The first is easily answered: the operatives have poured into the new factories, not from town or city, but from the country, direct from the cotton fields, we may say, to the mills. It was certainly not an anomalous movement when cotton was bringing 4¾ cents per pound. But with the staple commanding 9 to 10 cents, some reactionary phases must be looked for and provided against.

The antecedents of this class of labor deserve some attention. A great majority of the operatives come from the agricultural class known as tenant farmers; that is, men who farm the land of others, paying as rent a considerable portion of each year's crop. The tenant system was adopted in the South during the period of disorder and chaotic ruin following the Civil War, when our old system of labor was dissolved and no better base remained on which to build anew the fabric of agricultural life. Unfit as it is for a country of such institutions as ours, and the source in itself of very sore evils, the tenant system still had a necessary part in the closing third of a century.

Many of the tenant farmers of the last generation had, indeed, "seen better days." Not a few had been freeholders before the war, although usually of the little farms interspersed here and there among the great plantations of the aristocrats. Many others had been overseers, factors, agents of various sorts. A small proportion came from the class of decayed gentlemen. The rest were made up from those strata usually lumped together in motley fashion as "crackers," or, in South Carolina, "poor buckra."

Such are the antecedents of the mass of operatives in the new mills of the South. Bearing in mind this derivation, it is not difficult to account for many qualities, traits, and habitudes that might otherwise appear anomalous. For example, their extravagance is a characteristic almost without parallel among the toiling classes. But it is simple of explanation. The transition from a dollarless past to a many-dollared present would render any class of untutored human beings extravagant. Through a long generation of tenant-farming, these people scarcely saw a piece of money from Christmas to Christmas. Each year's supplies were either furnished by the owner of the land or bought on credit at a near-by store, to be paid for when cotton was picked. The harvest came, sometimes good, sometimes bad; but, good or bad, it seemed uniformly to take it all to pay the merchant and the landlord. The tenant rarely enjoyed even the sorry pleasure of selling his cotton and paying the hard cash to these creditors; instead, he usually hauled the raw product of

his toil directly to them and then turned apathetically away to begin half-hearted preparations for another year's crop. His wife and children shared his labors, sharing also his empty-handedness.

This went on through the dragging years of the South's agricultural prostration, until the last decade came, with its mills and its revolution, when the moneyless and landless ones drew into the new communities, to try breadwinning under unfamiliar conditions. The mothers and daughters had often worked on the farms, so they did not hesitate at the factory door, except when very young children claimed the care of the former. In most instances, indeed, the women's fingers proved the readiest for the new occupation.

But neither women nor men acquired dexterity without a period of laborious effort such as all workmen must struggle through when, possessed of only the inherited instincts of generations of bucolic ancestors, they set themselves to some form of mechanical labor. That period being done with, a certain amount of skill began to appear in all fairly intelligent operatives, and shortly they found themselves bringing home each Saturday night, or alternate Saturday night, according as pay-day fell, what appeared to many of them an amazing pile of money.

Cases such as the following are multiplied many times over: The father, mother, and six or eight boys and girls (for large families are the rule in this class), ranging from twelve to twenty-odd years of age, are at work in one mill. The adults, if fair weavers, easily average $22 each per month; the younger members of the family are probably spinners and average about $14 each per month. This family, then, that in the old life of the farm thought themselves fortunate, indeed, to handle $100 in cash throughout a year, now bring home something like $175 every month. Is it strange that extravagance seizes upon this metamorphosed household? If the sudden transition from pennilessness to plethoric pocketbooks did not in itself lead straight to spendthrift living, the precedents of their neighbors would speedily teach the trait. So the housewife loads the table with luxuries hitherto unknown, the pretty girl is tempted into all the

caprices of dress that her little Vanity Fair may flaunt, while the father and brother can scarcely tell whither their dollars speed on such swift wings.

Yet this wastefulness, too, is but a phase, destined to gradual elimination in the evolution of the process by which an agricultural people are converted into a manufacturing class. With all their illiteracy, they are not devoid of understanding; and when a certain bewilderment of these early years is past, it will be borne in upon them in countless ways, by their school privileges, their larger experience, their clearer views of the outside world — by their own innate manhood, indeed — that there are far other uses for hard-earned money than to be lavished on mere food and clothing and shelter. Many of them are already opening their eyes to the fact that for an abundance of things to eat and wear they have bartered a certain independence and manliness which are fostered by agricultural pursuits, even the lowliest, and which breed sturdier virtues than they can now transmit to their children. Awakening perceptions such as these will lead to different results: to a rescinding of extravagance always; often to a return to the farm; but far oftener to a steadfast purpose to work straight on where they are, saving every cent possible to educate the coming generation and set their feet in the path that leads to freedom.

How can they save money? clamor those who have been studying the comparative wage-scale of northern and southern factories without acquaintance with the actual conditions of the latter. By reasonable economy, is the answer here as elsewhere. From $20 to $30 per month is paid good weavers throughout this section, while the average spinner draws from $10 to $16; and these are regarded as good living wages in a country where the prices of necessaries range much lower than in the East or the West. Houses are to be heated only about four months of the year, and fuel is cheap, in many places less than $1.50 per cord for wood and $2 to $4 per ton for coal. Clothing costs far less in this warm climate than in a cold one. Farm and garden supplies are bought for what seems to the northern mind an absurdly low price, and dairy products are never high. Besides,

in all the rural mill communities, which are now counted by the score to every one in a city, a garden patch always, and often pasturage for one cow, can be counted on with every cottage.

House rent is not a considerable item. The mill cottages rent by the month on the basis of 60 cents to $1 per room, and they range in size from three to eight rooms, four, however, being the rule. With few exceptions these cottages are fairly comfortable and built with a view to good sanitation. Outside of cities, each one has its ground space where the inmates may grow flowers and vegetables, thus fostering a form of local attachment that is by no means weak.

From this brief survey it may be deduced that, while the one-time tiller of the soil has lost something in becoming a factory operative, he has also gained something. A surer balance between gain and loss may be struck when we have looked well into the subject of education in the new mill communities.

LEONORA BECK ELLIS.

ATLANTA, GA.

SANITATION AND SOCIAL PROGRESS.

A NOTED economist complains that in current discussions of social progress "our eyes are turned, not upon hopes and possibilities and positives, but rather upon despair, impossibilities, and negatives." Effectual progress depends upon positive ideas, and would we have our social theories pregnant for good, we must find for them a basis in positive ideas. It is, therefore, important that the social reformer and philosopher turn his eyes to the field of sanitation, where neither the specialist, the philosopher, nor the public has forsaken hopes, denied possibilities, nor abandoned positives. Of the achievements in this field the historian Lecky, writing his *Map of Life* at the very close of the nineteenth century, was able to state: "The triumphs of sanitary reform are perhaps the brightest page in the history of our century." Smallpox has been stamped out of every land where fanaticism or criminal neglect has not stayed the rescuing hand, plague has been put under control, typhoid abolished, diphtheria mastered, consumption explained and controlled, yellow fever driven even from the tropics. Whereas the savage dies at the rate of 60 to 100 in every 1,000, and suffers ravaging epidemics which periodically threaten the very existence of whole races, backward nations, such as Spain and Italy, lose but 30, while city rates in Germany and the United States are reduced to less than 20 in 1,000. The average age has advanced fifteen years in two generations. But not only has life's tenure lengthened, but life has been made more worth the living. Sickness has decreased, air is purer, water cleaner, large classes of men have for the first time known the pleasures of health.

Not all is done, however. Squalor and filth and destitution still abound, and preventable diseases still number their victims by hundreds of thousands. Some cities are backward, some states are skeptical, some classes are obdurate; but what man has done man can do, and we know experimentally that the future may confidently be expected to see the total eradication

of these transmissable diseases, which now levy such heavy contributions upon social vitality. New York has practically stamped out smallpox, Mississippi can do it by applying vaccine. Vienna University can hardly find enough typhoid patients to teach medical students the symptoms of the disease. Why has Philadelphia thousands of cases to spare? Pennsylvania will shortly rescue itself from polluted streams and typhoid havoc, as it has shown England how to stamp out tuberculosis among cattle. Consumption among men can be detected and checked more easily than diphtheria, and state sanatoria dare to point to the time when it will be difficult for medical colleges to find bacilli of tuberculosis for analysis. The limits to sanitary progress are not to be sought in sanitary science, but in social theories; not in the paucity of remedies, but in the unwillingness to justify them theoretically and to pay for their application.

What relation has sanitation to problems of distribution? Does filth disappear or disease recede as a family or a class or a nation increases its monopoly power? Is the standard of life dependent upon health and the means to protect it? Yes, perhaps we are about to argue that the study of sanitary problems will help us better to understand monopoly force; that sanitary conditions offer a criterion of the standard of life; that the health of a class depends upon its share of monopoly returns from industry; that man's hold upon life and vitality is intimately bound up with theories and methods of distribution; that sanitary progress depends upon right theories of taxation; and that the saving of twenty thousand lives a year in Pennsylvania alone waits upon public appreciation of the true nature of monopoly and its earnings. It is certain that the thesis on public sanitation must put in the foreground diagrams showing the various differential and marginal advantages possessed by different factors in production. And this because sanitary science is a phase of social science rather than a branch of chemistry, medicine, or biology.

It is of such sanitary science that the historian speaks when he finds the high-water mark of the past century's achievements in the triumphs of sanitary reform. In England, Ireland, and

Scotland sanitation implies statesmanship. It is state medicine, not laboratory medicine, that has re-housed Britain's poor; it is the application of vaccine lymph and the governmental utilization of antitoxin that have robbed smallpox and diphtheria of their terrors. It is the use, the compulsory use, of tuberculin, and not its discovery, that has purified a meat supply. Lecky had in mind the sanitarian who used his art for the accomplishment of needed structural changes in society—science as handmaid to statecraft.

No American historian would have paid such a tribute to the sanitarian. We are not yet in the habit of connecting sanitation and sociology. Discussion and responsibility are delegated to the physician, who, himself primarily a student of pathology and disease, tends to emphasize pills rather than public welfare. We laymen, on the other side, think, because the physician is the best possible agent, he makes a safe exclusive guardian of society's health. Councils, legislatures, and congresses pass measures and then turn over the execution of the social will to the physician. Deliberative assemblies have come to appoint public-health committees, but these regard their functions as primarily checks upon the vagaries of enthusiasts or perhaps as burdensome honors. Or perhaps, like the chairman of a public-health committee in the Pennsylvania legislature, they choose positions on such committees "because there ain't a d—— thing to do."

The danger in this excessive specialization is apparent, if the fundamental remedies, like the fundamental motives of sanitary science, lie outside the field of medical science and within that of social science. Legislation is futile unless administrative organs are provided to execute the will of the legislature. Executive officers can do little unless supported by the courts. The attitude of the courts depends, not upon the standards of the physicians, and of text-book writers upon bacteriology, but upon the standards and intelligence of the classes from which courts take their cue. The courts will not permanently administer laws which are opposed by those to whom they owe their existence. In the past the court-sustaining classes have not

been those which have technical knowledge of disease, but rather those which know less of germs and symptoms and prophylaxis than of luxuries and the pleasures of conspicuous consumption. The need is, therefore, in America, that the voting classes identify public-health work, not with diseases, which they do not understand, but with the advantages of cleanliness and health, which they can readily understand, because to these is attached a social, even a commercial, value. To that end it is important that we know the historical development of sanitation and its present relation to our theories of consumption and monopoly taxation.

Chronologically there have been seven clearly marked stages in the evolution of what we now call public-health administration. Each state and each city, if left to itself, passes through the same stages in its administration, even where a complete code is legislated, not evolved. To abridge the process is the professed aim of central governments today. But where a complete sanitary code is accepted by a newborn town as a condition to its incorporation, we still have the seven distinct motives represented.

The first period is that of racial tutelage, of pain economy, when the primary lessons of personal hygiene are learned. Through the distribution of plant and animal life, of heat and moisture, primitive man was forced to a nomadic life, and perforce enjoyed pure air, pure water, and pure soil. In his conflict with nature he learned to shun certain plants as poisonous, and to reject discolored and offensive water or meats. But when gregarious man settled in confined limits for definite and prolonged periods, nature could no longer perform the work of scavenger; sanitation must become conscious, and receive the sanction of law. The dead must be buried in Arabia, or embalmed along the Nile, offal removed and buried, lepers banished from camp or town, swine flesh avoided in Palestine, and all flesh eschewed in Buddha's realms. How costly were these lessons of community life we may judge from the stringency of the persisting codes among the Hindoos, or even the Jewish regulations as to intermarriage, kosher, etc. Agassiz was inter-

preting religious history when he said: "A natural law is as sacred as a moral principle." He might have said of this early period of sanitation, "Natural law is a potential moral principle," for then, as now, the unhealthful became the offensive, then the antisocial, finally the immoral. For example, we are at present tending to develop moral standards with reference to expectoration in public places, as we have succeeded in establishing the immorality of drunkenness.

The second stage is that of the introduction of sanitary appliances for the health and comfort of the tribute-taking classes. Carthage has her paved streets. Greece worships Hygeia and idolizes her devotees. Rome has paved streets, public sewers, extensive water-works, gem-bedecked public baths, and furnishes water more freely than any city of modern times, while the superintendency of water-works is allotted only to senators and honored officials. In the twelfth century Paris paves her streets, for the same reason that four centuries later London introduces water—to serve wealth and power. In Rome, Paris, London, as in Boston, Chicago, and Seattle, these first steps are due to another motive than desire to protect either public or private health. These public works, so far as they are due to other than property considerations, are primarily evidences of advancing standards of comfort, or perhaps concessions to a growing æsthetic sensitiveness. Constructed by the few to gratify their taste for cleanliness, ease, or show, the benefits accrue to society without reference to social standing, except that the poor may be permitted only a partial exploitation. In Rome we find the leisure-class motives isolated. To the patrician reveling in the possession of oriental loot, a place was necessary where he might parade the evidences of his prowess. The promenade must not remain unpassable after every shower, wherefore street-paving. The streets were cleaned because dirt and splendor, filthy passages and sweeping gold-braided togas, were incompatible. Compared with the perfumes of the East and the sweetness of costly olive oil, the exhalations from the human body were obnoxious; hence frequent appearance in the public bath became indispensable to social standing. Rome was

flooded with water for the same reason that the broad, wind-swept avenues of our large cities are cleaned three times as often as the narrow, sweltering, disease-breeding streets and alleys. Had we any way to give a silk dress to every workwoman, together with time to display it, we might be sure that the councilmen would demand the immediate renovation and constant sprinkling and sweeping of the narrow streets and alleys and asphalt everywhere.

The third period is that of commercial sanitation. This should have followed directly upon the second, but historically there was a period of two centuries "when Teutonic Europe was sleeping off its great debauch," when civilization was without the fundamental motives to sanitary improvement. The barbarian glutton found more primitive means of comparing his success with that of his neighbors than the promenade, and obtained greater satisfaction from wine and the sword than from oriental finery and clean garments. The ideals of Christian and pagan became direct obstacles to sanitary advancement. In fact, Holy Hieronymus, the monastic corporation, and the feudal lord combined to undo the sanitary progress of centuries of slow adaptation. The ascetic violated all the laws of personal hygiene, the monastery's ideal was inconsistent with public hygiene, and both glorified God by teaching submission to the pestilence. The feudal lord, on his part, thought first of the exigencies of defense, and constructed his castle with a view to herding together hosts of fighting warriors.

Europe made most bitter atonement for this disregard for the laws of health. Ravaging epidemics in the years 550, 1000, 1345–50, 1485, 1528, 1665, A. D., carried away millions, the Black Death alone, 1345–50, having cost China 13,000,000 lives, London 100,000, Venice a like number, Paris 50,000, and the Franciscan Friars of Germany 125,000. Lamprecht says these epidemics "were largely due to filth, but the superstition of the people attributed them to other causes." The repositories of the world's knowledge prevented Christian Europe from learning the lessons which blind followers of instinct, untutored and wild, would have learned from these disasters,

and thus filth became the medium of "dispensations of providence."

But, however welcome these evidences of divine wrath may have been to the zealot, they entailed unsufferable losses upon those classes of society which, in the breaking up of feudal institutions, stepped into the dominant position. I refer to the mercantile interests. By a strange coincidence, the first quarantine and the first street-cleaning in Germany date from the same year, 1348; the former in the foremost maritime city, Venice, the latter in the dominant guild town, Cologne. Thus at the same time began the reaction against the prevailing theory of the providential origin of plagues and the everlasting filth of the mediæval city. A well-defined philosophy soon arose to justify protection to commerce and garments and health. Erasmus voiced this new doctrine when he attributed the Sweating Sickness (1485, 1518) to the uncleanly habits of the English and the defective ventilation of their houses. More's *Utopia* had modern sanitary regulations, including isolation hospitals for transmissable diseases. Quarantine regulations in the Mediterranean preceded More, and by Montesquieu's time "Most countries in Europe have made exceedingly good quarantine regulations"—a policy then being introduced by the new American commercial states.

The fourth period is that of nuisance sanitation, the evolution by the courts of a nuisance law. This could not precede commercial sanitation, for so long as heaven sent disease, objection to noisome sights and odors was based on simple æsthetic motives. When earthly causes were premised, then the latitude of the courts could be greatly extended. Furthermore, it must be remembered that the same social diffentiation which caused the filth theory of disease likewise strengthened the æsthetic and pecuniary motives to cleanliness. "Nuisance" presumes social strata. So long as every householder owns a goat, a pigpen and slop barrel, a stable and a muddy, foul door-yard, there will be no calls upon the courts to declare this capital a public nuisance. When Bracton, therefore, in the fourteenth century, talks of nuisances, he generally means protruding roofs

or piles of rubbish, *i. e.*, obstructions; when Blackstone, in the eighteenth, mentions nuisances, the cateogory has widened to include obnoxious animals, offensive trades, foul watercourses. The fundamental maxim of the nuisance law was then: "So use your own that you will not injure another." To it we have added nothing but definition of injurious acts or things. The multiplication of such acts followed the stratification of society and the division of labor. No differentiation, no nuisance, increasing differentiation, multiplication of nuisances. This is true whether we compare decade with decade, district with district, city with country, or one part of the city with another. In the so-called "slums" nothing short of an impassable or suffocating odor is considered a public nuisance, but in "resident districts" fruit stores, groceries, meat-markets, etc., apply deodorizers and purifiers constantly, and the streets are kept cleared of decomposing substances. The index at any particular time or place is the monopoly power possessed by the classes which live upon or pass over the various districts. As the term "resident district" has come to mean, not the district where the greatest number reside, but where the "best," the moneyed, the leisure classes consume the portion of their wealth devoted to domestic display, so freedom from nuisances follows the line of income, *i. e.*, the line of freedom from competition. If certain streets seem to disprove this statement, investigation will show that they are enjoying cleanliness, not because of demands made by tenants, but because of higher standards exacted by "up-town" people who pass frequently, or perhaps because the "up-town" people fear the result of adjacent uncleanliness.

As the fourth period is marked by precautions against the unæsthetic or noisome, so the fifth stage develops precautions by "those who have" against the hidden dangers incident to neighboring lower standards of life, *i. e.*, against the slum. This stage the older civilization never knew. This type of sanitation could not develop until modern industry erected rookeries, immense factories, and retail establishments, the sweat-shop, creamery, and bakery. As soon as cities were divided into dis-

tricts according to industry and standard of life, it became possible to make inductive studies of health and sickness. Matthew Carey found, in 1794, that yellow fever chose seven-eighths of its victims among the poorer and less cleanly sections then about market and the river. He saw that wealth and culture were not immune because of any inherent or acquired grace, but that heaven, helping those who helped themselves, spared those whose standards of life made it possible to fly from the city into suburbs, or, if within the city, made cleanliness and drives and exercise, prompt expert medical attendance and isolation, possible. These conclusions need no modification because of the recent theory that mosquitos brought that same yellow pest. Boards of health were from Carey's time appointed, not for the sake of those sections that were supposed to cause epidemics, but for the benefit of the merchants, lawyers, women of the world, etc., who suffered discomfort and loss and interruptions, the leading motive of each being economic rather than hygienic. It is significant that the first vital statistics of the time were published by an economist to prove the financial loss entailed by epidemics, and that a great merchant established the first fever hospital and introduced trained nurses. This same simple economic motive has written stringent rules for the control of smallpox, typhoid, diphtheria, scarlet fever, and even consumption in nearly all communities, however small. But because based upon the interest of the few, the motive is intermittent in its action and waits upon crass and dramatic stimuli, hence we are conscious of these health rules only when danger is near and epidemic imminent.

So long as sanitation meant protection for those who had the greatest share in the returns from production, actual rather than potential dangers were treated. No great structural changes were to be expected. Had this leisure-class motive persevered, unaided by the philanthropic and socialistic elements of the last two stages, sanitary science would have stopped at the level of Philadelphia's former lethargy with reference to typhoid. The filtration plant never would have been built by the classes that can afford to buy spring water, nor could it have been delayed

so many years if typhoid had sought its victims chiefly from those classes. Philanthropy, in the sixth stage, taught the average man the value of his life and the possibility of enhancing its value by the expenditure of adequate corporate funds, thus ushering in the last and crowning epoch in the evolution of public sanitation, the socialistic, when the average man votes taxes to improve society's health.

Philanthropic sanitation was a product of the great, bloodless revolution that in England grew out of the terrible premises of the French Revolution. Adam Smith discovered labor to the English press; Ricardo fought the corn laws by discovering laborers; Malthus fixed the genus under an iron law of want; the arch-agitator Brougham argued the responsibility of Parliament—then the favored classes—for the betterment of labor's condition. Dickens and Reade were concrete and painted horrible pictures of London and England, their schools and prisons. Kingsley and the romance school prophesied a bright future when capital and labor should be one in motive and interest. The Poor Law Commission of 1832 furnished Carlyle with statistical material for soul-stirring impeachments of "the cold, dead, infinite injustice" of the existing methods of distribution. The Commission on the State of Health in Large Towns reported in 1842 that the English language lacked usable words to picture the filthy condition of the great towns, and urged parliamentary interference on behalf of the masses. The movement was aided by the spectacle of logicians like James Stuart Mill fluttering about and protesting man's inherent right to be filthy and sick and despised and self-loathing. In the words of Spencer, the only one of these individualists who has lived to see, without repenting, the folly of their opposition to sanitary regulations: "Bad drainage, overflowing cesspools, festering graveyards, impure water, and filth and humidity of low lodging-houses are effective means of eliminating the less fit." State altruism was challenged, too, by the chronic political decrier of centralization, who as late as 1848 opposed the Public Health Act because it was "un-English and unconstitutional," "savoring of Cromwellism," "like a Russian ukase," and "calculated to deprive

local authorities of the independent action [or indifference] which was the glory of our Anglo-Saxon institutions, and like rickety children place them in the go-cart of central government." In the meantime private philanthropy had led the way and had constructed hospitals, model tenements, schools, and had educated the masses, who now demanded as rights what was originally proposed as charity. For fifty years England has acted upon the double principle that the boulevard owes to the alley protection against disease and unsanitary conditions, and that it is the right of both to demand protection against each other and themselves. But both principles are based upon the theory that there is an unearned increment upon which society has claims, that there is an unpaid increment which is due the so-called poor, and that sanitary administration offers a very direct and most efficacious means of reducing the inequality.

Socialistic sanitation is therefore necessarily constructive. The term is used instead of "democratic sanitation," because the former suggests activity, endeavor, construction, application of public funds to remedy social wrongs or deficiencies; while the latter might mean no more than common indifference. We know it in America as the power that condemns rookeries; restricts builders; regulates hours of labor and the age of laborers; builds hospitals, public baths and lodging-houses; sets aside great areas for parks and playgrounds; establishes sanatoria for consumptives; inspects factories and mines; defines dangerous trades, and prescribes territorial limits to those that pollute stream or air; compels vaccination; certifies physicians, dentists, druggists, barbers; quarantines the sick on land and sea—separating mother and child, or condemning property, if need be; rejects immigrants; enters lodging-houses, even dwellings, to determine their sanitary condition; prohibits the adulteration of foods and penalizes the sale, or offer for sale, of impure foods for man and beast; presumes to name certain fuel as unfit; spends millions for water-works, sewage farms, and the support of health departments. No one community has carried out a consistent and thorough program, but no community has failed to accept the principle that the public has the right and the duty

to use public funds to remove and to prevent disease or conditions that generate disease. We may differ in our theories of disease or in our belief as to the exact time and place where public funds shall be used, but we are of one mind that private wealth, private ignorance, private comfort, must be of secondary importance when and where public health is at stake. The theory is of the seventh stage—socialistic; the administration may be in the first—personal; second and first—personal and comfort; first to third—personal, comfort, commercial; first to fourth—personal, comfort, commercial, nuisance; first to fifth—personal, comfort, commercial, nuisance, anti-slum; first to sixth—personal, comfort, commercial, nuisance, anti-slum, philanthropic; or a combination of all with the motives of the last—socialistic. Emphasis will vary among and within states, but the variations in ideal are infinitely less than those in achievement. Such variations as there are will be found to follow industrial variations and those in social theories. In classifying the situation and the tendency in any particular community, the seven stages of sanitary development ought to be of service.

This brings us to the statement that the limits to sanitary progress are to be sought, not in sanitary science, but in social theories—that sanitary progress depends upon right theories of taxation. A complete health program presumes either a different distribution of our present appropriations or else a great increase in those appropriations. The divers obstacles to the former immediately suggest themselves; retrenchment is impracticable, even were it desirable. We must increase our revenues. To propose to levy upon wages, rents, interest, or earned profits would defeat the program at the outset. We must suggest a tax that will bring benefits without accompanying burdens, for we have not yet educated the majority of voters to a proper dollar-and-cent valuation of their own health and that of their dependents. If we cannot educate the voters to see that there is taxation which confers benefits without imposing burdens, we cannot carry out a complete sanitary program. If our economists cannot demonstrate to the simplest, candid mind that there is such a thing as unearned increment on both capital and labor,

we cannot disabuse that mind of the traditional belief that taxation means burden and sacrifice. Finally, if we cannot prove that monopolies, whether within or without so-called trusts, offer a practical means of taking social earnings for social good—without depriving any man of his deserts—we must abandon hope of protecting society adequately from present and future insanitary conditions.

To conclude, let us reinforce the statement that sanitary administration offers a very direct and most efficacious means of reducing the inequalities that even the most conservative capitalist will concede to be incident to our present system of distribution. The meanest wage-earner has already come to associate his health with his capital; his lodge, his creditors, and his insurance company are emphasizing that relation. None is so mean as not to wish a higher standard of life—nothing is easier to demonstrate than that wide and clean streets, playgrounds, hospitals, public baths, food, tenement, and factory inspection, help to raise his minimum standard with no sacrifice by himself. In no other field have conservative thinkers and communities taken such advanced ground; conversely, no other field offers so little theoretical opposition or so little prejudice. No other field of administration can demonstrate so quickly and so readily—on the platform or by actual tests—that there is taxation which benefits (without burdening) the majority. Finally, we here shift the emphasis in our discussions of principles of law from abstractions which only confuse without interesting the majority, or from dollars that serve to divide thinkers along artificial lines, to mankind and its truest betterment—to the real problems of social progress.

WILLIAM H. ALLEN,
General Secretary New Jersey State Charities Association.

JERSEY CITY, N. J.

THE REFORMATION OF JUVENILE OFFENDERS IN ILLINOIS.

THREE methods of dealing with crime have been tried, viz., the retributive, the reformatory, and the preventive. For ages the first mentioned was dominant in all countries. The general opinion was that the criminal should be made to suffer as he had made others suffer—he should reap what he had sown. It was a sort of *quid pro quo* method of punishment. The criminal was repaid in his own coin.

The idea also prevailed that society must be protected, and by shutting the criminal up in prison this was, of course, accomplished, for the time being at least, and by inflicting severe punishment upon him it was supposed a wholesome terror would be inspired in the minds of others, which would prevent them from committing crime. But experience gradually demonstrated the inadequacy of this method of dealing with the criminal. While he was incarcerated society was, indeed, protected from his onslaughts; but he usually came out of prison a worse and more dangerous man than he was when he went in, and others were not so terrorized as to prevent them from committing crime. In short, the retributive theory of punishment —"an eye for an eye, and a tooth for a tooth"—overlooked the fact that crime is a product of definite causes (poverty, ignorance, weakness of will, etc.), which must be removed before the man would cease to commit crime. When this fact was clearly recognized the reformatory method was adopted. The Elmira Reformatory of New York was one of the first institutions to apply this method, and a number of other institutions have followed its example.

This theory is based on a recognition of the fact that the criminal is a victim or product of heredity and environment, and his inherited defects must be eradicated, his natural tendencies to crime must be checked; in a word, he must be *educated*, manually, mentally, and morally; he must be given the means of earning

a livelihood honestly, and his surroundings or environment must be so improved that his temptations will not be greater than an average human being can bear. In our reformatories, therefore, the inmates receive at least the elements of an English education, which they usually lack when they enter there; and they are also taught a trade; and then they are paroled and placed in new and better surroundings, where they have a chance to become good citizens.

The results of this method of dealing with criminals have been far more satisfactory than were the results of the old method. But penologists were finally forced to see that even the reformatory method was not perfect, and now they are advocating prevention as the best method of eradicating crime.

When a man has become a "hardened criminal," it is well-nigh impossible to reform him. When a youth has pursued a course of crime for years, it is very difficult to reform him, although our reformatories have accomplished and are accomplishing remarkable results. But if we take the boy who has inherited a predisposition to crime, or a weak will, or an unstable nervous system, and is placed in unfavorable surroundings, and by education and a change of environment strengthen his will, train his conscience, eradicate his criminal tendencies, and "give him a chance," he is far more apt to grow up to be a decent and law-abiding citizen. Institutions have been, and are being, founded to apply this theory, and it is the object of these articles to show what Illinois has done and is doing along these lines.

A few years ago Illinois was in the rear of the progressive states, but now she is well up toward the front. Her methods of dealing with criminals, juvenile and older offenders alike, and her schools and reformatories, are representative; they show what has been done in other states, as well as in this state, and as such they are of general interest.

In this article we will consider the work of the two reform schools and the reformatory which Illinois has had; and in another article we will consider the schools for dependents, delinquents, and truants.

I. THE CHICAGO REFORM SCHOOL.

This was the first reform school founded in Illinois. It was established in 1855 under an ordinance of the city of Chicago, and was located five miles south of the (then) city on the lake-shore, in what is now Hyde Park. It received delinquents, dependents, and truants. It was, of course, organized on the "congregate plan." Its discipline was parental in its nature, the law of kindness being the fundamental rule. The superintendent often received the punishment due to some offending inmate. The school was classified, and a child upon entering was placed in the middle grade, so that he might rise or fall according to his merits or demerits. Pupil government was introduced and a police system was established among the boys, which worked quite satisfactorily. But the school was a prison, as the superintendent himself admitted. It had bars and bolts, a high inclosure, and cells. Fortunately, in 1856 the buildings were destroyed by fire, and the boys had to be housed temporarily in an old packing-house. The management was forced to allow more liberty to the boys than had hitherto been granted, and the result was that very few even attempted to escape, and most of these few returned voluntarily to the school. When, therefore, the school was rebuilt, its plan of construction was entirely changed.

Most of the boys were committed by the police courts of the city for one year only, an evil which the superintendent at once recognized and protested against, urging that bad habits of long standing could not be rooted out in a year's time, and insisting that the boy should be committed during his minority.

The boys attended school from 7 to 9 A. M., and from 5 to 7 P. M. The rest of the time they spent in manual labor in the shops or the garden. The value of manual training and trade instruction in reform work was at once demonstrated and most heartily indorsed by the board of managers and the superintendent.

As already intimated, when the school was rebuilt, in 1856, "the cottage plan" was partially adopted, "a family building" to accommodate forty boys being erected. The results were so

satisfactory that the superintendent continued to urge the erection of other cottages, so that the smaller and more innocent boys might be separated from the older and more vicious.

The boys were employed in shoemaking, tailoring, knitting, carpentry, gardening, and all sorts of housework. The "ticket of leave" was adopted, with excellent results. These tickets were renewed each month, where the boy was doing well, and the necessity of this periodical renewal of his parole served as an incentive to good conduct. The per capita cost for the year 1862 was $99.31, which included all expenditures for the 181 boys in the school. More family buildings were gradually erected, and the "confidential system" was continued. In 1861 the legislature passed a law authorizing the mayor of Chicago to appoint annually a commissioner before whom boys between the ages of six and seventeen should be brought, when accused of petty offenses; and he often discharged them on probation. This change in the method of commitment proved very beneficial to the boy and to the school. But in 1867 the law was again changed and the duty of commitment was assigned to the judges of the superior or circuit courts of Chicago.

The board of guardians was given the power to bind out boys, to grant "tickets of leave," and to discharge boys for cause, but the boys while on parole were subject to the control of the guardians. The school continued to do good work until 1871. During its existence it cared for 1,284 children, about 70 per cent. of whom we are justified in concluding were reformed at a cost of about $343 each.

In 1870 the supreme court of Illinois declared the acts of 1863 and 1867, under which the school had been organized, unconstitutional, because they did not provide for the trial of the child by a jury, but gave to a commissioner or a judge the power of commitment. This decision assumed that the school was a prison, and that the inmates were criminals—an allegation strenuously denied by its defenders. The court went to extremes in upholding the rights of parents over their children, and a later decision of the same court practically nullified this opinion.

As the city had never purchased the land upon which the

school was erected, a committee of the board of supervisors of Cook county, in 1871, advised the county commissioners to sell the land, paying the city $50,000 for the improvements, and this was agreed to; but "the great fire" of that year destroyed most of the school buildings, and the school authorities immediately obtained permission from the legislature to transfer the few remaining pupils to the new State Reform School at Pontiac. This was done, and the Chicago Reform School, after having performed a substantial service to this city, ceased to exist.

II. THE STATE REFORM SCHOOL.

In 1867 the Illinois legislature passed an act for the reformation of boys between the ages of eight and eighteen years; and in 1869 the law was re-enacted, more time for the erection of the reform school being allowed. The object of the act was "the discipline, education, employment, and reformation of juvenile offenders and vagrants." Acting under this law, the governor appointed a board of trustees, who proceeded at once to purchase a tract of 276 acres of excellent land at Pontiac, in Livingston county, about ninety-two miles south of Chicago. Buildings were erected of sufficient capacity to accommodate 125 pupils; but the number increased so rapidly that more buildings were needed a year later. Mr. George W. Perkins, the first superintendent, was soon succeeded by Dr. John D. Scouller, who continued as superintendent until 1891. The "family plan" was adopted, and separate buildings, accommodating from forty to fifty boys each, were gradually erected.

A high fence was built around the school in order to restrain the most vicious boys, but the superintendent later advocated its removal and the granting of greater liberty to the boys, in spite of the fact that as many as twenty boys had escaped in one year.

A law of 1873 provided that boys between the ages of ten and sixteen, guilty of an offense which, if committed by an adult, would be punishable by imprisonment in a jail or penitentiary, should be sent to the reform school for a term not less than one year nor more than five years. This definite limitation by law

of the term of confinement proved to be disastrous, as the courts often committed the worst boys for only one year; and the superintendent and trustees later urged that the law should be so amended that the boys might be kept in the school, if necessary, until they were twenty-one years of age; but their recommendation was not adopted. The same act also abolished the "ticket of leave" system, which had hitherto produced such good results, but it contained "a good time" clause by which a boy might earn and be credited with time as follows: each month in the first year, five days; each month in the second year, six days; each month in third year, seven days; each month in fourth year, eight days; and each month in fifth year, nine days. Whenever an inmate was degraded for misconduct or violation of the rules, he lost five days of his "good time" for each offense.

The boys were employed at various trades—shoemaking, brickmaking, and cane-seating of chairs. Some of this work was done under the abominable contract system, which, in 1874, was sanctioned and authorized by law, and was not abolished until 1886, when the constitutional amendment prohibiting it was passed, and the state account system was adopted.

As to results accomplished by the school, the trustees in their report for 1882 say:

> During the eleven years of the school's existence we have received over twelve hundred (1,200) boys, and discharged nearly a thousand (1,000). Some of the boys who were discharged eight or nine years ago are now men with families, respected and honorable members of society. We are positive that many of them, had it not been for the Reform School, would today have been lawbreakers and criminals, preying upon society.

During the twenty years of its existence the State Reform School received 2,305 boys, and it seems reasonable to conclude that 75 per cent. of those discharged did well.

The tables of statistics given in the reports are incomplete, and do not enable us to form positive conclusions, but of 793 boys honorably discharged, 554, or about 70 per cent., are reported as doing well, while 123 lapsed, and 198 were lost sight of. Assuming that some of these did well, we seem justified in

concluding that about 75 per cent. of those discharged became law-abiding citizens. The trustees and superintendent claim that they followed the career of the boys for years after they left the school, and base their report upon reliable information. We may, therefore, place considerable confidence in the conclusion drawn.

III. THE ILLINOIS STATE REFORMATORY.

In 1890 it was determined to convert the reform school into a reformatory similar to the New York Reformatory. A committee had been appointed by the legislature the year before to visit the eastern and other prisons and reformatories and report on their construction, organization, and discipline. This committee made its report to the legislature of 1891. The Elmira institution and system were fully described, and the construction of a similar reformatory was advocated. As early as 1886 the state board of charities, which had the supervision of the reform school, had declared that the school was not based upon the law of guardianship, according to which the state stands in *loco parentis* to dependent and delinquent children, but upon the stern principle of retribution for offenses committed against the criminal law. It was also pointed out that commitments to this school were for a definite term of years, and that parole or conditional liberation of imates was not allowed. The act of 1871, converting the reform school into a reformatory, sought to remedy some of these defects. It provided that the inmates should be divided into two classes, the first to include males between ten and sixteen years of age, the second to include males between sixteen and twenty-one years of age. A boy of the first class who should commit an offense which, if committed by an adult, would be punishable by confinement in a jail or penitentiary, should be sentenced to the reformatory for not less than one year nor longer than the maximum term of confinement provided by law for such a crime.

The boy might be sent to jail, at the discretion of the court. No one who had been guilty of a capital offense or had served a term in the penitentiary might be committed to the reformatory. The law reads:

Every sentence shall be a general sentence to imprisonment in the Illinois State Reformatory, and the courts of this state imposing such sentence shall not fix or limit the duration thereof. The term of such imprisonment of any person so convicted and sentenced shall be terminated by the board of managers of the reformatory, as authorized by this act; but such imprisonment shall not exceed the maximum term provided by law for the crime for which the prisoner was convicted and sentenced.

The board of managers was also authorized to parole the inmates when honorable and useful employment for at least six months could be obtained for them and their conduct justified it. Such paroled prisoners remained in the legal custody of the board, and were liable upon the violation of their parole to be retaken and returned to the reformatory. When the conduct of any prisoner who has served on parole for at least six months is such as to satisfy the superintendent that he will remain at liberty without violating the law, he must so certify to the board of managers, who, after a careful consideration of the case and upon being satisfied that the prisoner may be safely discharged, must send his record to the judge of the court that sentenced him, recommending his final discharge, and the judge must discharge him.

The board of managers, appointed under this act, reported in December, 1891, that, upon taking charge of the reformatory, they found the buildings in need of reparation and many changes necessary.

The open-dormitory system had been in use in the reform school, but this was now abolished, and cells $7 \times 8 \times 8$ feet were substituted in its place. The shoe-shop, which had not proved very remunerative, was closed and a broom factory established, and other trades were gradually introduced. The old lockstep, which had been in vogue, was abolished, and the military system established, with good results. The inmates were organized into four schools and placed under teachers, who gave instruction in the ordinary English branches a certain portion of each day. The farm and garden were brought under cultivation and yielded large returns.

In 1895 Major R. W. McClaughry, warden of the Illinois penitentiary, became superintendent of the reformatory. He

classified the inmates into three grades, and when a boy was committed to the reformatory he was placed in the second grade, so that he might rise or fall according to his merits or demerits. The marking system was adopted, and if a boy made a "perfect record" (*i. e.*, three marks a month for good conduct, three for labor, and three for study) for six consecutive months, he was promoted to the first grade, and six months of similar record in the first grade placed him in the "parole grade," when he was given a hearing by the managers with a view to his parole. In school work 75 per cent. was reckoned a perfect record.

If while in the second or neutral grade the inmate persists in behaving badly, he falls, in time, to the third or penal grade, in which he dons the red garb of disgrace, marches in lockstep, is deprived of coffee at meals, of light in the evening in his cell, and of the privilege of visiting or receiving letters or visits from friends. But to all in this grade is offered the inducement to climb out of it into a higher grade.

In 1894 eight large schools, divided into four sections, were organized, and as the number of inmates increased more schools were organized, until now they number sixteen, with an attendance of over eight hundred pupils. Instruction in all the essential branches of an English education is given by competent teachers, who must hold a first-grade teacher's certificate, and must have been successful teachers elsewhere before coming to the reformatory. All inmates are required to attend school half a day, unless they have already passed the grade established for those who are eligible to parole. During the winter months the junior portion of the smaller boys spend six hours a day in the schoolroom, and in the summer months three hours. During the latter period they are employed a part of the time in light work in the garden or on the farm.

If anyone doubts that ignorance is one of the chief causes of crime, his doubt may be removed by reading the records of our reformatories. Thus we are informed that of 989 boys committed to the Illinois Reformatory, of whom 208 were between ten and sixteen years of age, and 781 between sixteen and twenty-one years of age, only 11 had attended high schools; 198 had been in the common schools, and 780 had received little, if any,

education. Ninety per cent. of those who had attended school confessed themselves to have been chronic truants. But while the inmates of our reformatories are largely ignorant of books, it is their lack of skill in a trade or some useful vocation which seems to be the chief cause of their downfall. Hence great emphasis is laid upon industrial training in the Illinois reformatory, as in other similar institutions. Instruction is given in carpentry, brick and stone masonry, plastering, painting, paperhanging, tinwork, glazing, plumbing, gardening, electrical engineering, blacksmithing, shoemaking, tailoring, laundry work, stone- and granite-cutting, printing, bookbinding, cabinet work, music, photography, knitting, chairmaking, bookkeeping, and domestic service. "So skilled do many of the inmates become," we are told, "that it may be truthfully said that they could build a workshop or residence from foundation to roof, and paint it in good style, with but little outside assistance, and that of a supervisory character." The result is that the vast majority of "the graduates of Pontiac" earn an honest living after leaving the reformatory, and those who fall are without excuse, unless, indeed, "innate depravity" be considered an excuse for committing crime.

On October 1, 1900, there were 1,275 inmates in the reformatory, and they were organized into four battalions, each 300 strong, to whom military instruction and drill are given by competent officers. Workshops, cell-houses, and other buildings have been erected during the last decade, until this reformatory is now as well equipped as perhaps any similar institution in the country — save in one particular. As already stated, about two hundred small boys, between ten and sixteen years of age, are incarcerated with the older inmates. It is true that they are kept separate from the older boys — have separate schools, dining-rooms, playgrounds, and dormitories — and are not under as strict discipline as are the others. But the reformatory authorities admit that these young boys ought not to be confined in the same inclosure with the older and more vicious prisoners, and they have been asking for money for some time to erect cottages for the small boys outside the reformatory walls. But a still more serious objection to committing these small boys to

the reformatory is that they must be convicted of a felony, and thus legally stamped as "criminals," before they can be sent to this institution. Hence the best sentiment of the state is opposed to sending young boys to Pontiac at all, and other institutions have been provided or are being provided for them.

It is claimed that the discipline of the reformatory is mild, but firm, and there is no reason to doubt that this is true; at least it is true in the vast majority of cases. No doubt stern measures have to be adopted in certain cases, where an inmate proves to be wholly irresponsive to kindly influences. Such cases are found in all institutions (even in churches!), and rose-water treatment is not effective. Several newspaper attacks have recently been made upon the Pontiac Reformatory, but these attacks were based chiefly on the statements of a few discharged inmates, who, it appeared, had been very unmanageable while in the reformatory. The rules of discipline are certainly humane and reasonable in character, and the board of managers and superintendent and other officers of the reformatory are among the most enlightened and humane reformers in the state. Until recently the board of managers had the power to transfer prisoners who might prove to be incorrigible to the state penitentiary, but a recent decision of the supreme court has declared this feature of the law unconstitutional, null, and void.

What percentage of those who pass through the reformatory are reformed? Between 1891 and 1900 it received 5,316 inmates; 3,328 have been paroled; 624 have been returned for further treatment; 94 were transferred to the penitentiary; the sentences of 526 expired; 30 were pardoned, 53 died, 78 escaped, and 40 were released on a writ of *habeas corpus*—these latter being released in 1899 and 1900, since the juvenile-court law of 1899 went into effect. Making all due allowance for relapses, we seem justified in concluding that at least the vast majority of those who were paroled and some of those who served out their terms, or were pardoned, became law-abiding citizens; and, if so, the work of the reformatory must be considered a success.

T. H. MacQueary.

Chicago Parental School.

ARISTOPHANES AS A STUDENT OF SOCIETY.

THE fact that Aristophanes is a most important witness to the social and economic conditions prevailing in Athens in the latter part of the fifth century B. C. is generally recognized, even when his testimony has not been critically studied. The interest of the dramatist in social and economic problems, his tentative studies and theories along these lines, the testimony of his writings to the fact that many of the problems which a little later engaged the attention of Plato were commonly discussed in Athens a generation before Plato began to handle them—these matters have not been so generally either studied or recognized. In the present paper I have endeavored to collect some of the data on these lines and to classify them for further investigation. I shall speak first of Aristophanes's treatment of the motives of social activity and the fundamental postulates of society; secondly, of his analysis of the family and the state; and, thirdly, of his discussion of property and related economic questions.

I. THE ELEMENTS OF SOCIAL LIFE.

The theory of society which may be traced in the work of Aristophanes starts with the fact that economic needs—the need of food, of clothing, and of shelter—are at the basis of society. In perhaps the earliest of Greek dreams of the systematic reorganization of society on a communistic basis, in the *Ecclesiazousæ* of Aristophanes, these needs are to be supplied by the state itself. After land, money, and other property have been turned over to the women in control of the state, then *they* will care for its citizens; "everyone will have everything—bread, fish, cakes, clothing, wine, crowns," and women (605). Under ordinary circumstances, however, a man must earn the money to supply these needs, and thus they serve as the stimulus which gives rise to all the different arts and trades. "All arts and devices among men were discovered by reason of you [Wealth]; for one of us sits at the shoemaker's bench, another is a

blacksmith, another a carpenter, another gets gold from you and fashions it, another is a thief and a burglar, by Zeus, another cards wool, another tans leather," etc.; and all by reason of wealth.[1] In the defense which poverty offers it is set forth clearly that it is the need of money to meet the fundamental necessities of life which makes men work; "if Wealth were to distribute himself equally, no man would trouble himself about skill in the arts or practical wisdom; and after these were gone, who would want to carry on the different arts, provided he could live in idleness neglecting them?"[2] So then, the argument runs, poverty is a benefit both to the individual in that it makes him work, and to society in that it causes the production of much to satisfy human needs and in so doing binds society together. Conversely, the satisfaction of all needs by means of wealth breeds gout and inactivity and crime.[3] Even the religious side of social life, from the materialistic standpoint set forth by the poet, depends ultimately on physical needs and the desire for money to satisfy these needs. Men no longer sacrifice to the gods when they have money to buy what they want, so that the priest who had shared these sacrifices complains bitterly that the presence of Plutus among men has taken away his livelihood;[4] men no longer sacrifice to the gods, but to the birds, when it is the birds who look after the crops and cause human activities to prosper.[5]

The general thesis of the *Acharnians* is that war should cease because it interferes with natural pleasures. The war had seriously interfered with agriculture; it had limited the variety of food at Athens, nor could men get enough food of any kind; it had prevented the simple joys of the rural Dionysia; it broke up the new family by carrying off the bridegroom to serve as a soldier. In Megara there was famine such that the citizen brought his daughters to sell them in the market of Dicæopolis; in this case, also, hunger is a fundamental reason for commercial activity.

Again the *Lysistrata* is an absurd and obscene presentation of

[1] *Plut.*, 160 f.; *cf.* 188 f., 533. [2] *Ibid.*, 510 f. [3] *Ibid.*, 560 f. [4] *Ibid.*, 133, 1114 f. [5] *Av.*, 1058 f.

the fact that appetite and passion are fundamental factors in social life; in that it interferes with these, war is to be brought to an end. Finally the same motives which are behind normal social life are noted as causes of crime, so that under the system of communism proposed in the *Ecclesiazousæ* crime will cease;[1] moreover, the same distribution of wealth which would check commercial activity would also check crime.[2]

Imitation as a factor in social life is recognized by the poet. In Athens, and in the parody of Athens in the *Birds*, men are subject to crazes of imitation:

> In the time before
> There was a Spartan mania, and people went
> Stalking about the streets, with Spartan staves,
> With their long hair, unwashed and slovenly,
> Like so many Socrates's; but, of late,
> Birds are the fashion — Birds are all in all —
> Their modes of life are grown to be mere copies
> Of the birds' habits; rising with the lark,
> Scratching and scrabbling suits and informations;
> Picking and pecking upon points of law;
> Brooding and hatching evidence.[3]

An example of this trait in the Athenian appears in the *Ecclesiazousæ* (787). Before yielding to the demands of the new communism, the citizen waits to see whether others propose to obey the law before he obeys it and turns in his property.

Aristophanes clearly recognizes that habit and tradition are conservative forces which lend stability to society. The birds lack stability of manner and persistence of purpose,[4] a feature of the bird-city in which the Athenians could not but see reflected a lack of their own.[5] One advantage in the new rule of the women proposed in the *Ecclesiazousæ* is to be that love of the good old ways which marks women (215), while men are always ready to try some new thing (584 f.). Strepsiades in the opening of the *Clouds* laments that slaves are no longer under the control of masters, because the old social conditions are dis-

[1] *Eccl.*, 698 f., 670.
[2] *Plut.*, 165 and 565 f.
[3] *Av.*, 1280; FRERE's translation.
[4] *Ibid.*, 165.
[5] *Cf. Eccl.*, 813 f.

turbed by war. In the discussion between the two *logoi* the value of conservative custom in giving permanence to society is clearly set forth; in fact, this might be treated as the main thesis of the *Clouds*.

That the love of excitement was a potent factor in Athenian life is quite generally recognized. The popularity of the law courts, which was due in a measure to this love of excitement, is a theme of which Aristophanes never tires.[1] It is treated at greatest length in the *Wasps*, in which Philocleon is represented as fairly crazy on the subject; at the end of the play, however, it appears that the craze can be overcome. After the "homœopathic" treatment of a mimic court, an appeal to appetite and to the Athenian fondness for display quite wins over the old man.

The ethical postulates at the basis of society are not passed over without recognition. In the *Clouds* Strepsiades is most anxious to discover a means of repudiating his debts.[2] In spite of warnings, he places first himself, then his son, under the tutelage of Socrates in order to learn how to make "the worse appear the better reason;" he succeeds in shaking off two of his creditors, but he is soon taught that the weapon he is using may be turned against himself. In the end the man most inclined to protest against the demands of social justice learns his own dependence on it. The result of the dramatic action is emphasized in the discussion; in particular, the argument of the two *logoi* bring out the poet's conception of the value of education and religion as ethical forces which underlie anything that deserves the name of society. In the *Birds* the effort of two Athenians to escape social and political obligations meets with the most fantastic success. It was not the aim of the *Clouds* to preach the value of justice, but rather to hit off the characteristic traits of the sophist in such a way as to amuse the audience; so it was not the aim of the *Birds* to demonstrate that a man can escape from the demands of society or that he cannot escape them; the aim was to amuse the audience by an extravagant picture of the results which took place when a man attempted

[1] *Cf. Eccl.*, 450, 560, 585. [2] *Nub.*, 444 f., 1142 f.

to escape these demands. The extravagance of the poet is indication enough that he knew the futility of such efforts as were made by Euelpides and Peithetærus.

II. THE FAMILY AND THE STATE.

The family is treated by Aristophanes from three points of view. First, as to the relation of husband and wife, the poet sees their mutual dependence and makes this fact the central feature of the *Lysistrata*. In the parabasis of the *Thesmophoriazousæ* (786 f.) the attitude of husbands toward their wives, the way they speak ill of their wives while at the same time they guard these "plagues" as most precious, is cleverly described:

> They're always abusing the women,
> As a terrible plague to men:
> They say we're the root of all evil,
> And repeat it again and again. . . . .
> And pray, then, why do you marry us,
> If we're all the plagues you say?
> And why do you take such care of us,
> And keep us so safe at home,
> And are never easy a moment,
> If ever we chance to roam?
> When you ought to be thanking heaven
> That your plague is out of the way.[1]

Finally in the *Clouds* the fact that Strepsiades has taken a wife from a higher social station than his own is one of the factors that complicate the plot. Their tastes differ at every point; she involves her husband in the debts from which he is trying to escape, and she wants to bring up their son as a member of the class in society from which she came.

Secondly, Aristophanes points out that the home is the woman's sphere, and that she wins credit by proper management of it. His women complain that the dramas of Euripides had made the Athenians very suspicious of their wives.[2] If one were to take the representation of the women by comedy as the criterion, he would regard the opinion attributed to Euripides as only too well founded; Aristophanes, however, is consciously

[1] Collin's translation. [2] *Thesm.*, 385, 419; *Batr.*, 980.

assuming the privileges of a satirist; he feels not the slightest hesitation in making use of Euripides's devices, even when he is holding up Euripides himself to ridicule. There must be irony in the proposal to turn over the management of the state to women because they managed their households so well;[1] perhaps the poet thought that households were no better managed than the scheme of government which the women tried to institute. That women were easily led by passion (as in their attempt to get even with Euripides), that they were inclined to be visionary, that they found amusement in cheating their husbands in small matters,[2] no doubt the poet would hold; it is very evident also that he can count on amusing his audience by treating the failings of women; still, if I read these comedies rightly, the ability of women in general to manage a home well was not discredited either by the poet or by his audience.

Thirdly, the relation of father and son is frequently treated in these plays. In the *Clouds* Pheidippides is brought up from childhood to feel that he is superior to his father. He treats his father's suggestions somewhat cavalierly; having the support of his mother and her aristocratic connections, he is not much moved by his father's threat to turn him out of the house; but by bribes, persuasions, and threats Strepsiades finally gains his point. It is only as the result of the new sophistic teaching that the respect of the son entirely disappears, so that he justifies himself in beating his father. In the *Ecclesiazousæ* (635 f.) one of the great objections to the communistic family is that fathers will not know their sons; to this Aristophanes replies, as Plato replied later, that all the young will reverence the older as fathers so much the more because the older will combine to enforce their rights. In the *Birds* (1351) the man who wants to treat his father as birds are said to treat their parents is advised to go and fight the Thracians instead. The plot of the *Wasps* turns on the difficulties which no doubt often did arise when the father was old and unreasonable; here and in the *Clouds* we have the Greek justification for this treatment of sons by parents, in that each man has his turn as father.

[1] *Eccl.*, 211. [2] *Thesm.*, 812.

Much as Aristophanes has to say about contemporary politics, with its wholesale briberies,[1] its wheedling of the sovereign people,[2] and the misconduct of those intrusted with power,[3] he says but little about the functions of the state, or the principle on which the state is based. So strong are democratic tendencies at Athens that, if one asks a fish-dealer for some kind of fish which he does not happen to have on hand, he may be answered that it savors of tyranny to be so particular about one's food.[4] One of the most convincing arguments against the administration at Athens which had been carrying on the Peloponnesian war was the charge of unfairness in the distribution of duties and privileges by the state.[5] This jealous watch over the rights of each member of the community shows what democracy meant for the Athenians of Aristophanes's day, viz., that the rights of the individual were quite as important as the authority of the community. Closely connected with this sentiment is the fundamental principle of Athenian politics, the principle that the origin and legitimacy of government depend on the will of the people. So fully was this principle recognized that we need hardly be surprised to find that Aristophanes and his audience do not seem to have given critical consideration to the question of the state. This principle finds a good illustration in the ease with which the new communistic constitution of the *Ecclesiazousæ* was proposed and set in operation. Such a change seemed quite natural for the Athenians of that day, because it was in line both with political practice[6] and with the political philosophy of the day. It was only necessary for the women to give themselves a little practice in debate, and to steal away from their husbands dressed up as men—scenes which furnish free scope for the poet's fun; then they can pack the assembly and put through the constitution which turns over the government of the state to the women.

In the arguments adduced in favor of the new plan, both before the assembly and later in private discussion, there is

[1] *Pax*, 645; *Plut.*, 170 f.

[2] *Achar.*, 639 f.; *Equit.*, *pass.*

[3] *Cf.* the report of the embassies, *Achar.*, 65 f.

[4] *Vesp.*, 493 f.; *Cf. Pax*, 640.

[5] *Achar.*, 609 f.

[6] *Cf. Ibid.*, 632.

some attempt to analyze the different functions of the state.[1] The army will be in the hands of wives and mothers who will see that life is not thrown away recklessly and that the hardships of the soldiers are not too great. The women claim some skill in financial administration; as they have managed the household in spite of interference by their husbands,[2] so they will take into their hands the property of all the citizens and use the revenues to supply the needs of all. The administration of justice will be directly in the hands of the executive power, so as to dispense with litigation. Further, it will be unnecessary to punish crime, for the causes of crime are to be removed, while the control of the necessaries of life will make the authority of the new government absolute.

From this account it appears that the essential difference between the family and the state is overlooked, not perhaps by Aristophanes so much as by the philosophers whose conceptions he holds up to ridicule. Financial, judicial, and military activity are recognized as functions of the state, while all three are subordinated to the direct effort to meet the individual economic needs of the citizens. Communism is held up to ridicule and is brought to a speedy end; the recognition of the economic basis of the state, and some crude analysis of the functions of the state represent the condition of political science as understood by the poet.

III. PROPERTY AND ECONOMIC QUESTIONS.

The scheme of communism, the inauguration and failure of which constitute the plot of the *Ecclesiazousæ*, is interesting from the economic as well as from the political side. Such schemes inevitably come up for discussion when the distribution of wealth in a state theoretically democratic becomes very unequal. Moreover, certain practices at Athens would serve as a natural starting-point for the theory. The gifts of corn to the people,[3] and the practice of bribing the people into good humor ridiculed in the *Knights* (where the assembly turns first

[1] *Cf.* especially *Eccl.*, 232 f., 452 f., 560 f.

[2] *Eccl.*, 211; *Thesm.*, 419, 812; *Batr.*, 982; *Lysist.*, 495.

[3] *Vesp.*, 715 f.

to the man who announces cheap sardines, then to the man who proposes a large public sacrifice in honor of so toward an event),[1] might easily give rise to the belief that the state could supply all the wants of the poor, if only it chose to do it. It should be noted, further, that nothing is said of communism in the opening of the play. Misrule and inequality of property are the evils which the women set out to correct. At first the suggestion is made that the state might fittingly provide for the wants of the poor.[2] Only when the rule of the women is actually under way is the more radical proposition broached. Starting with the theory of equal rights, the women now propose that all property be vested in the state as such, and that the state supply all the wants of all its citizens. In the scene justifying this proposal[3] it is explained that all work will be done by slaves, that the houses will all be thrown into one, that meals will be served in public, and that marriage, or any permanence in the relations of men and women, will be abolished. The promoters of this scheme recognize that it will do away with the value of money and with all commerce as well as with much crime, and further, that it will remove both the necessity of labor and the incentive to labor. The practice of assigning offices by lot, as though they were gifts which the state might bestow on a few citizens, no doubt made it seem more feasible to propose that the state give meals to all its citizens and assign them places at the table by lot. The presentation of this plan, and that through women disguised as men, formed a fitting subject for comedy; to criticise was no part of the poet's purpose. He does, however, suggest the result—the shipwreck of the whole plan in the failure to adjust satisfactorily the relations between men and women.

The sources of wealth are enumerated in the *Birds* (588 f.) as agriculture, mines, commerce, and buried moneys; in regard to each of these the birds profess to be able to help men more than the gods. Crime offers many opportunities of gaining wealth; when a man becomes suddenly rich, as did Chremylus, it is assumed that he did not gain his wealth honestly.[4] In time

[1] *Eq.*, 649 f. [2] *Eccl.*, 415 f. [3] *Ibid.*, 590 f. [4] *Plut.*, 30, 352 f.

of peace the farm produced almost all that its owner needed. "My farm," says Dicæopolis,

> Never used to cry, "Come buy my charcoal,"
> Nor "Buy my oil," nor "Buy my anything,"
> But gave me what I wanted, freely and fairly,
> Clear of all cost, with never a word of buying.[1]

This ideal independence of the individual farmer had no doubt been realized to a considerable extent before the Peloponnesian war in the case of larger estates; in this connection it is interesting because it sheds light on the conception of commerce as the opportunity of the wealthy to obtain foreign goods, and not as a normal fact in a country's internal life. War had disturbed this normal condition. When successful agriculture became impossible, Athens became dependent on her neighbors for the ordinary supplies of life; the luxuries of Bœotia were often shut out of her market, and at times the import of dried fish and grain was threatened.[2] Commerce was a source of wealth primarily in that successful exports and imports brought in large returns, if they met with no disaster.[3] Retail trade was not recognized as a legitimate source of income, and the references to it explain the reason for this view, viz., success in trade was thought to be due to the trader's success in cheating. The tricks by which the bird seller makes his birds look fat and attractive are described;[4] by cornering the market in the pots used to carry home small fish, Agoracritus proposes to keep the price of fish down,[5] and a little later he is represented as controlling the market in the herbs used as relish with fish;[6] the boldness of the common people in days of political suspicions is also part of the stock in trade of the petty dealer.[7] Such being the conception of retail trade by both seller and buyer, it is not surprising that special police, *agoranomoi*, were appointed to look after the market-place, and that the state expected a good income from the market tax.[8]

[1] *Achar.*, 34 f.; FRERE'S translation.

[2] *Pax*, 551, 999 f.; *Eq.*, 805 f.; and the market scenes in the *Acharnians*.

[3] *Av.*, 594 f. [4] *Ibid.*, 1079 f. [5] *Eq.*, 649. [6] *Ibid.*, 676.

[7] *Vesp.*, 493, and the choice of a "sausage seller" in the *Knights* to outwit Cleon at his own game.

[8] *Cf.* the market scenes in the *Achar.*

In one of the simpler of Aristophanes's plays, the *Plutus* ("Wealth"), he gives some data as to the nature of money which are important for the history of economics in Greece. The plot of the play is very simple. Chremylus, disappointed that wickedness, rather than righteous living, brings wealth, consults the oracle at Delphi to learn whether he shall bring up his son to wickedness in order that he may not remain poor. Apollo's answer enables him to find Plutus, who is a blind and rather crusty old fellow. He then proposes to have Plutus cured of his blindness at the shrine of Asclepius. The operation is successful, and thereafter wealth is to be distributed according to merit, while Plutus will naturally be worshipped instead of the gods who had caused his blindness. Only criminals and priests who had shared the sacrifices of the gods object to the change. The analysis of the nature of money appears at various points in the play, but particularly in the protests of Poverty and her plea that she has always benefited man more than Wealth could do. The value of money, we are told, depends on the limited supply of it, for if everyone had all he wanted there would be no incentive to labor, and the rich could purchase nothing with his money.[1] Nothing is said in this play of the function of the state in coining money, but the references to counterfeit money[2] show that the fact was recognized, even though nothing is said of the reasons for it. Again money, the means and measure of exchange, loses its value completely in a communistic state which directly supplies all the needs of its citizens so that they have no occasion to buy anything. Its intrinsic value is of little moment; it is valuable because it secures all objects to meet man's varied needs; it even enables him to gain political power and secures to the general victory in battle.[3] Thus it gains such value that it serves as the motive for all the arts and sciences which supply what men wish to buy.[4] At the same time it is a motive to crime;[5] it is likely to be misused;[6] and it weakens the character of its possessor.[7]

[1] *Plut.*, 510 f. *et passim.*

[2] *E. g.*, in the *Achar.*, 517.

[3] *Plut.*, 145, 170, 184 f., 188 f.

[4] *Ibid.*, 160, 510, 533.

[5] *Ibid.*, 30.

[6] *Ibid.*, 237.

[7] *Ibid.*, 559 f.

The preceding discussion has proved somewhat scattering, because it was necessary to look at one point after another in Aristophanes's picture of life at Athens, and in each instance we have confined ourselves to the theoretical aspect of the question. Social and economic theory is never in the foreground; it must be found, if at all, in allusions, in the standpoint from which social life is treated, and in the manner in which data as to society are marshalled into dramatic scenes. The outcome of the present discussion may be summarized in two points.

First and most important, we have found some light on the state of political and social science in the latter part of the fifth century B. C. It has become clear that social questions were actively discussed in the days of Aristophanes, and that some slight progress was being made toward an analysis of social elements and forces. This discussion was reflected in the work of the poet himself; and, while he never sets himself to discuss social questions in a scientific way, they do often find a place in his work, and then they are treated with great insight and shrewdness. Perhaps it is fair to say that he is more interested in contributing something indirectly to the subjects which occupied the thought and attention of his hearers than in delineating character or in working out complicated plots. It was the political and social and economic conditions of Athens, more than any other one topic, which formed the background of his comedies.

The second point is a corollary of the first. It is universally recognized that the comedies of Aristophanes are the most important source for our knowledge of social life at Athens in the fifth century. Such testimony would be welcome if it came even from a superficial observer, on the one hand, or, on the other hand, from a theorist who presented social facts to prove his own hypotheses. It is doubly welcome from Aristophanes; for, while he is no theorist, he has an insight into the fundamental facts of social life that leads him to present a fair and broad-minded view even of the society he is satirizing.

ARTHUR FAIRBANKS.

UNIVERSITY OF IOWA.

THE RUSKIN CO-OPERATIVE COLONY.

THE writer has spent some five months at the Ruskin Co-operative Colony at Ruskin, Tenn. This colony had become known throughout the world as an example, as far as a partial centralization of productive and distributive agencies could make it so, of the socialist's ideal. The colony had some 600 acres of tillable land and 1,000 acres of land almost worthless. They had a sawmill, a printing and publishing establishment, where a weekly paper, expounding socialism, was printed. They made leather suspenders, had a tailoring shop, a cereal coffee manufactory, a general store, a gristmill, a bakery, a tin shop, a blacksmith shop, a laundry, a photograph gallery, a carpenter and joiner shop, a vegetable and flower garden, a kitchen and common dining-room, a hennery, etc. All of these industries were owned by the association. They, as well as the farm, were operated by the members of the association almost entirely. These members received "hour checks" for one-half of the time they worked. The week's work consisted of fifty hours, the remuneration for which was a "twenty-five hour check." Children not full grown, women who were exempt from labor by reason of nursing a child or of being sick, and men who were unable to work also received an allowance in the form of hour checks. These checks were redeemed at the store in goods, or by the treasurer in United States currency on demand, at two cents per "hour." Meals, rent of house room, laundry service, mending of shoes, schools, and medical attention were free to all members and their families, and the mending of clothes and care of rooms were free to all bachelors. Goods were sold to members at the colony store at wholesale rates.

The colony was sold out by a receiver a few years ago. An association was organized to succeed the old one. It has carried on the colony since, at Ruskin, Ga., but not successfully. The colony rapidly disintegrated and is now practically extinct.

It will be of interest to consider the phenomena observed,

which I shall arrange according to De Greef's classification. We shall first consider the

ECONOMIC PHENOMENA.

At the beginning of the last decade a Mr. Wayland, who was publishing a socialistic paper, conceived the idea of starting a co-operative colony. He announced in his paper that, if his subscribers would increase the circulation of the paper to a satisfactory degree, a colony site would be purchased, the printing establishment moved to it, and a colony started. The circulation was increased as desired and a 1,000-acre tract was bought at $2.50 per acre. Perhaps the first mistake was made in the selection of the land, for it was worthless. The farmers in the vicinity have told the writer that they knew the land well, but that it was not worth paying taxes on. Here, therefore, was $2,500 practically thrown away. The printing establishment was duly moved to the land, and set up, and the colony was started. Cheap buildings were erected and the town was soon in operation. They had a common dining-room and lived on good fare. In fact, their living was too expensive for colony pioneers, who ought to save every cent they possibly can for a sinking fund. Here was another mistake. Their only industry at first was the publication of the weekly paper, and they soon decided to start other industries. They engaged in the manufacture of stump pullers, hay presses, wood-sawing machines, and other machines. Patent rights were purchased, patterns and castings made at a distant city and shipped to the colony, where the machines were put together. But the machines, for some reason, would not sell, and all the money and time they had invested were lost. Anyone who has had any experience in the business of starting a manufacturing establishment can readily understand that thousands of dollars were lost in these experiments. They subsequently decided to engage in the manufacture of sash, doors, moldings, etc., and a lot of wood-working machinery worth about $2,000 was shipped to them on trial. They decided not to accept the machinery, and the manufacturer sued. The managers of the colony had included the machinery

in their inventory, and, this fact being ascertained, they lost the suit and were obliged to keep the machinery and pay for it. As the manufacture and sale of sash was impracticable there, owing to the location, etc., all the money paid for the machinery was lost.

The circulation of the paper, owing perhaps to increasing competition, was meanwhile decreasing at a rapid rate, and the colonists found that they would be obliged to raise their own farm produce. After they had gone to the expense of putting a barbed-wire fence around their land, they found that it was worthless, and began to look about for other land. They purchased a tract of land some four miles farther from the railroad. When the neighboring farmers found that the colony was obliged to purchase better land somewhere in the neighborhood, they raised the price of their land. It has been hinted that there was a connivance between some member of the purchasing committee and the sellers, but, whatever the facts may be, they lost another thousand dollars or so by paying a high price for their land. Having obtained the new site, they moved there, but now they were six miles from the nearest railroad station, which was a great disadvantage, for everything had to be hauled over roads that usually followed creek beds and abounded with stones, sand, and gravel, so that only a very small load could be hauled. All they bought from the outside world was necessarily hauled over this rough, bridgeless road and the cost correspondingly increased, while the products of their industries were decreased in value by the cost of this haul. Having settled in the new location, farming was begun. But the southern soil has certain peculiarities which the northern and the western soil has not, and a northern farmer cannot work a southern farm profitably until he understands these peculiarities and is willing to admit that he does not know all about farming. The tools used by the northern farmer cannot all be used by the southern farmer, and as the colony farmer was a northern man, some money was wasted by purchasing implements which were found to be useless in the South. It has been asserted that this loss amounted to as much as $500.

On the farm, wheat, corn, potatoes, etc., were raised, but never enough to supply the wants of the colony, and hence large amounts of money were used to supply the deficiency. This was a leakage, a very serious one. The garden supplied the dining-rooms sparingly with vegetables. Flowers were cultivated and seeds sold to outsiders, but the demand for them was small. There was a large cave on the place in which rhubarb was grown to a very large size during the winter months, but it was claimed that the most accessible market was too distant to dispose of this crop with profit. There was the same drawback to the strawberry crop. There were cows enough to keep the table supplied with milk, but not enough to supply them with butter. This was purchased mainly from the native farmers.

The paper, as I have stated before, had a large circulation at first, and the press used to print it was capable of doing the work. Notwithstanding this, it was exchanged for a cylinder press, at a cost of some $3,500 in cash. Furthermore, the cylinder press was not suitable for book-printing.

At one time the colony undertook to publish reform literature in pamphlet and in book form, but it didn't pay and was stopped. Orders were taken for reform literature, however, and a stock of the most popular works of this kind was carried.

There was not work enough to keep the members profitably employed, yet outside labor was hired to chop wood and logs. Wood was used as fuel, and the sawmill boiler was of an ancient pattern, with poor heat-economizing devices. Consequently much wood was wasted.

The editor of the paper, commenting, in 1901, on these matters, said :

> One year very good celery was grown and stored in the large cave for the winter. It was preserved so well that at the time in the spring when celery is exhausted in the market this celery was at its best. A trial shipment of it was made to a neighboring city, and was sold for a fancy price that showed a fine profit in the business if conducted systematically from year to year. But practical members of the colony were rebuffed by the management for urging this. Fees for membership were coming in and nobody was in want, and fees would always be coming in. An opportunity to profit by laundry work was thrown at their door. The laundry agents of a

neighboring town, Dixon, ten miles distant, learning that the colony had a steam laundry for its own work, sent to Ruskin three times to urge upon them the laundry work that was being sent to a town a hundred miles away. An improvement in the Ruskin laundry of $75 would have enabled them to do this and other work that in time could have afforded them a permanent business of $100 a month clear profit. The management refused to consider the proposal. . . . . An iron molder who had joined the colony showed them that they could buy in the market the best castings for half the price they were paying for inferior ones. This man, supposed to be a partner in the business, was told to grub at his own affairs and not to meddle with the management. . . . . The Ruskin farming was the laughing-stock of the neighborhood. They resented rather than appreciated suggestions offered by successful neighboring farmers who were familiar with the conditions essential to produce a good crop in that part of the country. Work was always going on, after its fashion, and hard work by many, but without the foresight and direction that yields returns. . . . . A worn-out plantation several miles away was rented for $300 for the season [1900]. Extra mules and additional tools were bought. After all summer's work this farm did not come out even with what was expended on it in labor and money, and it was called a total failure. . . . . The crops on the colony land also turned out a total failure. All the farming in this region (southern Georgia) is done by planting in ridges, as a protection against heat and sunbake. Those who were selected to superintend the farming insisted on planting flat, as they had been accustomed to do where they were raised. They refused to imitate their neighbors. One of the farmers of the colony said: "I will plant this way [flat] if I live to be a thousand years old." . . . . The neighbors harvested fair crops.

Other serious mistakes could be mentioned, but enough has been said to show that the management of the colony was a very unwise one, and that this was the direct cause of the failure of the colony.

The publication of the paper had always, until the receiver was appointed, been a source of considerable profit. Just what this profit was no one knew, as the accounting system was defective.

Bath cabinets were manufactured, on which the profit was large, but the demand for them was very small, and they sold not more than one per week. Chewing gum was manufactured, but there was scarcely any demand for it. The tailoring shop made a small profit on its outside trade. Clothing was made for the colonists at cost, saving them a great deal of money.

The sawmill did little or no work for the outside trade. The lumber sawed was used for building purposes. It was therefore not a source of revenue, but a money-saving enterprise, as it enabled the members to get their lumber with no cash outlay except for machinery and oil and some outside labor that was hired to chop logs. The manufacture of cereal coffee was profitable, but the demand for it was very small, and it was therefore only a small source of revenue. Leather suspenders were made by hand, all but the embossing, which was done by a machine. The demand for them was small, and it is doubtful whether they were a source of revenue.

One rather uncommon source of income was from the Fourth of July celebrations, held in the big cave. There was music and dancing and a free barbecue. A large profit was realized from admission tickets and on refreshments sold, great crowds being attracted from the surrounding country.

The steam laundry was sufficiently equipped with machinery for colony purposes. It was in charge of a man, but the other hands were all women. Washing was done there for all the colonists, but the ironing and starching were done at home, each for herself. The clothes and bed linen of bachelors and widowers were, however, ironed and mended for them free of charge. This laundry saved a great deal of labor to the colony. If done individually—each family for itself—the family washing would have consumed one-half day for each family per week, and a woman could not work her required five hours per day for the colony on the day she did her washing. There were present about seventy families at the time of which I write, and possibly fifty women were required to work five hours per day for the colony, the others being, for various reasons, exempt. The labor of fifty women for one day would be 250 hours, which divided by nine to reduce it to the regular working day of others would make about twenty-eight days of labor. The labor required to run the laundry was eight days of nine hours per week by the women, and perhaps three days per week by the manager, which gives a total of eleven days. The colony therefore gained twenty-eight days minus eleven days,

or seventeen days, each week by means of the laundry. Against these seventeen days are to be charged the steam used in running the laundry, depreciation of plant, etc. The steam was furnished from the sawmill boiler, and but little of it was required; and the machinery was obtained cheaply; there was therefore very little to be subtracted from these seventeen days per week—so little that it can be disregarded. Another point to be noted in this connection is that the twenty women who could not work also had their washing done by the colony free of charge, and that expense was saved to them.

The common dining-room was quite a time-saving device. There were four cooks, each of whom worked about seven hours per day, a total of twenty-eight hours. The paring and preparing of vegetables were done by women. Some twelve were employed, averaging about three hours each per day, or thirty-six hours all told. There were some thirty-five waiters, who also washed the dishes. Each worked approximately four hours per day, deducting the time they consumed in eating their meals, or 140 hours per day for all. Two hours of labor were required to sweep the dining-room per day. Two bakers were employed to bake the bread, nine hours per day, or eighteen hours for both. The manager devoted all his time to the work, and this was nine hours per day. Recapitulating, we have:

Paring, etc.	36 hours.
Cooking	28 "
Waiting	140 "
Sweeping	2 "
Baking	18 "
Managing	9 "
Total	233 "

Let us compare this with the work the women would be required to do if each family did its own cooking. The work of purchasing, preparing, cooking and serving food, washing dishes, sweeping the dining-room and kitchen, baking, etc., in each family would be something like nine hours per day on the average. Nine hours per day for seventy families would be 630

hours. Subtracting from 630 hours the 233 hours required in the common dining-room, we have 397 hours, almost 400, saved each day by the co-operative method. This is equal to a saving of 63½ per cent., and to the work of forty-four persons working nine hours per day.

There was a small cash income from the blacksmithy, as work was done for outsiders. The machine shop sometimes did a little work for neighboring mills for cash. The doctor earned some money from professional visits to outsiders, which was turned over to the colony. No charge was made to colonists for the doctor's services. There is said to be some advantage in having a colony doctor, as he has no incentive to keep his patients sick for the sake of fees. His interest lies in getting them well as quickly as possible. The photograph gallery did considerable custom work for cash. Colonists got rates reduced to cost, and paid in colony scrip or in cash, as they preferred. The store did considerable business, but the greater part of its sales were for hour checks, and no profit was made on these sales. Another part of its business was barter with the neighboring farmers for butter and eggs. This produce was all consumed by the colony, and the bartering at the store was therefore only a cheaper way of buying this produce. This was a profit, but not a cash profit. It encouraged the bad habit of consuming admission fees, for the goods bartered away had been paid for in cash which had usually been obtained from the sale of stock. A third portion was sold for cash to outsiders and to members. On that which was sold to members no profit was made, but sales to outsiders yielded a profit. These outsiders were southern farmers, a class of people with a low standard of living; hence these cash sales were small, and the store could not be called a money-making enterprise. Its chief utility lay in providing goods to members at wholesale rates.

The farming, as was said before, was badly managed, and it would therefore be unfair to compare it with farming under the competitive system, which is well managed. The merits or demerits of co-operation could not be determined in that way.

GENETIC PHENOMENA.

Families lived separately, as in other villages. The mother was not required to work for three months before and one year after confinement.

Marriage ceremonies were performed in the ordinary way. Sometimes they were performed in public, on the stage. One peculiar ceremony was that performed at the marriage of two prominent members. The contracting parties first read a statement saying, among other things, that they would live together so long as love should last between them, and no longer. They were then married in the legal way by a justice, who took no notice of the preliminary remarks that the pair had made. The matter was taken up by some reporters, who called it a free-love marriage, ignoring the fact that a legal ceremony had been performed. A few of the earliest members were free lovers in theory, but no one has ever charged them as far as I am aware with being such in practice.

There was some scattering criticism on the fertility of one or two families who had children nearly every year. It was supposed by some that, if the parents had been obliged to find support for their children under the competitive system, they would have been more prudent. I am inclined to doubt this, however, and do not think that the socialistic principle of providing for the children of all had any noticeable tendency to increase the population.

There was a more marked disposition among the younger people to get married than there is outside of colonies of this sort. Young women were scarcer than eligible men, and all the former got married or had opportunities to marry as soon as they were marriageable. The reason for this was, perhaps, that there was security of employment and of a livelihood, and hence no worry about the future on the part of the members. The advent of a family caused no apprehensions, for the colony issued to the father colony scrip for the maintenance of the children. The absence of worry in the colony, until the receiver was appointed, was really remarkable, and was commented on by many visitors. It was the doctor's opinion that it was very

conducive to good health, and tended to lengthen life. Sexual selection was not governed by economic considerations, as in ordinary society. There were no opportunities to make fortunes, and one person's economic prospect was as good as another's. Sexual selection was therefore governed by personal affinity, looks, etc., and not by money considerations.

The criticism has been made that sufficient provisions were not made for the care of children old enough to run about while the mother was at work. During the school months they were all at school, but through the vacations the mother could not look after them while she was at work, and it was thought by some that the children degenerated somewhat for this reason; others, again, held a different opinion.

EDUCATIONAL PHENOMENA.

The smaller children received kindergarten training, and as they grew older they attended school. The school year at the colony was ten months long, but the state paid the teacher for only five months. This salary was turned over to the colony, which furnished a teacher. Several members also gave instruction after working hours in French, elocution, gymnastics, and a few other branches. There was a foreman of recreation who superintended the theatricals given every two weeks. Music lessons were also given. The Progress League, composed of the children, gave an entertainment every two weeks. Instructive experiments in chemistry were occasionally made at these entertainments. The foundation of a college building was laid, but it was never carried farther. There was a public library containing one or two thousand volumes. It was open evenings, and books were loaned to members. It was well patronized. There was a brass band of some fifteen or sixteen pieces, which gave concerts at regular intervals.

ARTISTIC PHENOMENA.

Art was not very prominent, but it was more in evidence than it would have been in a competitive village. One of the colonists spent nearly a year in painting a drop curtain for the stage; and also painted a portrait of Ruskin. He had classes in

drawing at times. A manual-training school was talked of for the future. Men who worked at trades were, as a rule, not afraid to show anyone how to do the work. This is quite a contrast with the competitive system, in which it is sometimes very hard to learn a trade, because skilled laborers are afraid that they may educate someone who will afterward displace them.

PHENOMENA PERTAINING TO BELIEFS.

There was, first of all, a deeply rooted belief in the efficacy of the principles of socialism. Some of the members even valued the theories of socialistic authorities above practice. Contradictory as it may seem, there were a few socialists with a decided leaning toward anarchy; who would have abolished all rules and regulations, and depended upon established custom and the sense of right of the members to carry on the colony, if they had been able to do so. Their optimism blinded them so that they could not see the disastrous results in store for the colony.

The religious belief of the colony was like Jacob's coat. Nearly all the chief religions of civilized races were represented. Protestantism, however, was more in evidence than any other cult. There were a number of freethinkers. "Mental Science" had quite a following, and was reported to be responsible for the death of one member. This man was a student of the "science" and also wished to learn the art of swimming. He was told by one of the leading "scientists" that if he firmly made up his mind that he was able to swim, he would find that he had no difficulty in swimming. One morning, soon after this, he was missing, and his body found in a deep place in the creek. It is reported that another "scientist," when she caught a bedbug, would place it on the porch, headed toward the gate, and say: "Now, you go away, and don't you ever come back again." It is not reported that her plan was efficacious.

MORAL PHENOMENA.

The ethical views of some of the leaders were somewhat hazy. A number of people were induced to join the colony by the printed statement of the officials that the net assets were over

$94,000. As has been seen, there was a variety of industries, and no ordinary person could form an approximately correct estimate of the values of the various assets, so the statement was accepted as true. It may be of interest to see how this large estimate was obtained. For a particular purpose an estimate was once asked for of the value of the sawmill machinery, etc. When obtained, it was found to be only one-third of the last annual inventory. When the foreman was asked to explain the discrepancy, he said that he had been instructed by the officials not to make the inventory lower than that of the preceding year. A lot of catalogues and two old directories, one of Chicago and one of St. Louis, were inventoried at $65. Nearly all, if not all, the buildings were inventoried at from two to five times their value; and the buildings which were bought on the farms, and should therefore not have been inventoried at all, since the farms were inventoried at their purchase price, or higher, were put in at a high figure. The gristmill appeared a third time in the inventory with the mill machinery. These and other facts lead me to believe that the net assets were not more than one-third or one-fourth of the value given to them in the annual statement. Another statement which went the rounds of the press was that the colony was rated A 1 by Bradstreet. The fact is that in 1899 it was rated merely C by Bradstreet.

So many things had been given to the colonists by well-meaning friends outside the colony that they had become a little pauperized. There was a feeling that, if they needed anything, they had only to express their wants in their paper and some good friend of the colony would send it to them. They were undeceived, however, when a receiver was appointed, and their appeals for aid, through the paper and by letters, were practically unanswered.

JUDICIAL PHENOMENA.

The colony had a constitution which could be amended by a vote of the members. A board of thirteen directors legislated for the colony, but their actions were at all times subject to a referendum vote, if demanded. Colonists also had the privilege

of the initiative, and sometimes availed themselves of it. There was an executive committee of three, of which the president was chairman, which directed the daily work of the colony and carried out the orders of the board of directors. The secretary looked after the correspondence and orders, and performed the usual duties of that office. There was a treasurer, who, strange to say, was not required to give bonds.

POLITICAL PHENOMENA.

There was a political ring composed of some five or six members. This ring had succeeded in ousting another ring in or about 1897. The latter retaliated by injunctions of various kinds, and they and their adherents became known as "injunctionists." I do not mean to say that this was the sole reason that injunctions were applied for, but it was one of the reasons. The object of the ring was mainly to secure offices and easy positions. I do not know whether there were any who made a profit out of their office, but one of them was suspected of such dishonesty. The ring had apparently not gotten to the point where money is used to influence voters in various ways. Liquor could not easily be used for this purpose, for none was allowed to be sold there.

If the writer may judge from his limited observations, he would say that the worst thing a co-operative colony has to contend with is lack of ability among its members to manage its affairs. M. Godin led his employees into co-operation gradually, so that they learned one step at a time, and that is perhaps the only way to start a co-operative colony successfully. Mr. Wayland, the founder of the Coming Nation and of the Ruskin Colony, had put himself under obligations to turn the whole thing, paper and all, over to the colonists, and he could not control them after that. He became discouraged with them and left the colony. If he could have controlled affairs until the colonists had learned business principles and acquired habits of economy, things would perhaps have gone differently. The Oneida Community also had to face a crisis, some time after they had begun to co-operate, when they found that they had

lost some $40,000. However, there was such religious discipline there, and the leaders had such good sense, that they were enabled to institute a system of rigid economy in the colony which put them on their feet once more. There was no religious discipline at Ruskin, but an economic control would, I think, have answered the purpose.

Another serious evil that colonies have to contend with is the political ring. This will spring up in favorable soil, and it has a tendency to put incompetent men into office, who can do the colony serious injury.

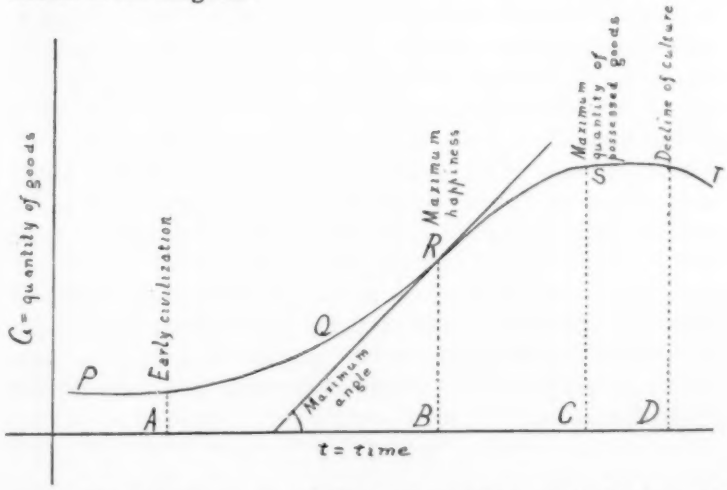
The successful co-operative village furnishes more opportunities for economy, culture, and amusement than any other village of its size. It creates neither beggars nor tramps, but, recognizing its duty toward dependents and defectives, it supports them in a rational way. It gives security of employment and of a livelihood. The intelligent and strong help those who are not so fortunate. It is in many respects like a large family, and tends to restore some of the good features of mediæval family life. It is, therefore, a subject worthy of further experiment by intelligent and successful business people.

J. W. Braam.

Chicago.

ON LIFE-SATISFACTION.

THE purpose of this article is to discuss and prove the following proposition: *The degree of life-satisfaction of separate individuals or of whole societies is measured, not by the absolute quantity of goods possessed, but by the rapidity with which this quantity is increasing.* In other words, the feeling of satisfaction or of self-contentment is a result or a function, not of the quantity of goods, but of the rapidity with which the quantity varies from time to time. Mathematically, this proposition may be expressed thus: Let the curve *PQRST* in the accompanying diagram represent the aggregate quantity of goods—material, moral, and intellectual—possessed at any given time by an individual, a human society, or a nation. This curve, which we may call the "progress curve," generally has an aspect like that shown in the diagram:



An organism or a society develops first very slowly and then with increasing rapidity; hence the corresponding part, *PQ*, of the curve (early civilization) rises slantingly. In youth

the process of self-improvement goes on in the most active manner, but when the organism begins to mature, the speed decreases; this is represented by the portion QRS of the "progress curve," rising first rapidly, then more slowly. Finally the organism becomes tired, and decadence is the result; this is illustrated by the last part, ST, of the figure, showing diminishing ordinates. It seems to me—and this is precisely my contention—that an individual or a society feels *most contented, most satisfied*, not at the point S of the curve, but at the point R (*i. e.*, at the point of the greatest inclination of the curve), notwithstanding the fact that the quantity of goods enjoyed at S is perhaps twice as large as that at R. I make this assertion because at R the quantity of goods increases most rapidly in a given time. The individual at this period is sanguine and full of hope; every day brings something new into his life; he is conscious of the fruits of his labor.

At S the contrary is the case. The absolute quantity of goods possessed is here comparatively large; but this quantity is immovable; every day brings the same thing; the entire work of the organism is expended uselessly at some point, just as in a bad machine friction and internal resistances impede the movement—in spite of its labors, it does not go forward. Thus it is clear that life-contentment must be smaller here than at R. Moreover, I assert that even at PQ, where the *absolute quantity* of goods is very small, there is more satisfaction than at S, because there is still some progress at PQ, while there is none at S.

In short, my thought may be expressed mathematically as follows: *The degree of life-satisfaction of an individual or a society is independent of the ordinate of the "progress curve," but is a function of the angle which the tangent to this curve forms with the axle of the abscissæ;* or

$$S = f\left(\frac{dG}{dt}\right),$$

where S is the degree of life-satisfaction, G the quantity of goods possessed, and t the time.[1] The truth of this statement is

[1] For those unfamiliar with mathematical analysis it may be observed that the

proved as well by history as by our observations of ourselves and our surroundings. The historical examples of Greece and Rome are familiar to all. A generally hopeful state of mind existed there precisely at the epoch of the most intensive elaboration of different problems or of the most extensive growth of territory, and not at the period when inventions and discoveries had already been made or territories acquired; in other words, not at the time when the people could enjoy the goods already acquired; on the contrary, just at this epoch a feeling of discontent and pessimism prevailed.

It is interesting to note that nations instinctively feel this. It is always at a definite stage of progress that regrets commence about a pastoral life, about a past golden age, etc. All this is only a reminiscence of times when progress was more rapid and when every day brought something new into life.

Similarly individuals like to remember their youth, although they were then, no doubt, less intellectual and probably poorer than at a later age. But their "progress curve" formed a large angle with the abscissæ axle, the quantity of goods they possessed increased very rapidly, and this overcame all. One learns in his youth that the square of the hypothenuse is equal to the sum of the squares of the two other sides of the triangle; he learns wonderful laws of the movement of celestial bodies, beautiful chemical formulas, the principle of evolution of living creatures. A youth feels for the first time the emotions of love; for the first time he tries to say "yes" and "no" in his own business affairs, insignificant though they be. But all this passes quickly in a few years.

Later the individual learns more about the laws of nature. He is now able to love better women than before, to accomplish more important and more difficult tasks. But, in spite of this, there is at this stage no such intensity of life; the curve ascends slowly, and there is thus less contentment than before. Every-

symbol $\frac{dG}{dt}$ signifies the relative increase of the quantity G with the time t; the symbol f means function or dependence; so that the above formula can be expressed in words as follows: The degree of life-satisfaction (S) is depending (f) upon the relative growth of the goods possessed (dG) with the time (dt).

one likewise knows from his own vocation that, after the first self-evident improvements have been made, the following ones are not so easy; the work progresses slowly and does not bring the same satisfaction as before.

The example of a person making money may be quoted as a further proof of my proposition. A merchant experiences a higher degree of satisfaction the better his business is going; *i. e.*, the more interest he is making on his capital. Suppose he received 20 per cent. on his capital five years ago, and is receiving only 5 per cent. this year. He was undoubtedly more cheerful five years ago than he is today, although his capital, *absolutely speaking*, is considerably greater now than then. But he is enjoying, not the capital itself, but the rapidity of its growth; and that is a case under my proposition.

Of course, such a general sociological law is very rarely met with, in reality, in its pure aspect. Many other causes and factors are constantly interfering, all together composing, in their complexity, what we call "life." Religion is one of these important factors. It changes considerably the aspect of the "progress curve," in that it planes it. Were it allowable to compare a man or a human society to a machine, religion might be likened, in some respects, to the fly wheel preventing the machine from going either too fast or too slowly. Thus when progress tends to become too rapid, religion will prevent this by its conservatism. But coming, through this very struggle, in contact with progress, religion itself thus takes a step forward. A fly wheel, however, sometimes absorbs a part of the useful work of the machine itself. The church put under its ban the men who asserted that the earth is round; but today this is being taught even in parochial schools and seminaries, and bad marks are given to pupils who do not know the proofs of the earth's roundness.

Conversely, when an individual or a human society becomes tired, progress begins to slacken, and apathy and pessimism result. Here the church steps in to console by its dogmas and by promises of other joys than those obtainable in this life; or to convince the sufferer that worldly pleasures are not worth

seeking. In this way religion has helped many individuals and nations to overcome periods of depression in their lives, and prevented their "progress curve" from falling too low. While thus religion, as a fly wheel, by its opposition, takes much joy away from progress, it returns it later, in the form of stored energy, to joyless people.

If my proposition be true, the following consequences must be drawn:

1. If you wish to give pleasure to someone—to a people, a group of persons, a friend, or even to yourself—*always try to do it in the shortest possible time*. Otherwise, if you do it slowly or step by step, the result will be imperceptible. It is better to increase the ordinate of the "progress curve" little and quickly than much and slowly.

2. Notwithstanding the immense progress to be expected in the future, humanity will never be very happy, or, more precisely, *its happiness will never be commensurate with the reached results*, because, to be satisfied, it constantly requires new progress, and because every new step tends to make people more exacting.

If, by some miracle, we were transported a hundred years forward, we should undoubtedly be extremely happy, because a great step would have been taken in a short time, corresponding to a large angle on the "progress curve." But it does by no means follow that people in reality will be very happy after a hundred years. They will have obtained the large quantity of goods in their possession by a long route; the curve will be a slanting one, and the degree of happiness felt will probably be as moderate as our own—perhaps even smaller.

Thus our theorem explains the apparent paradox that, notwithstanding the progress of culture, humanity has not become perceptibly happier. People constantly complain, constantly seek for something better, as they have sought for it in ancient Egypt, in Rome, in the Middle Ages—everywhere and always. The whole paradox is based on a wrong standard of happiness. It is taken for granted that the aggregate amount of goods possessed by a people, and not the rapidity of its increase, constitutes the measure for its happiness.

Let us therefore be calm and not be jealous of posterity. Probably our descendants will fly over the ocean in airships in half an hour; they will possibly and probably make their bread directly from clay; but it is very doubtful whether they will be happier than ourselves. Yet it will be admitted that the final goal of all our activities is happiness; and if this is not attained, what is the good of all the screws and machinery?

3. The third consequence is the most important, because, rightly applied, it reconciles us with life. It may be stated as follows: *It lies within the power of each individual, as of each people, to increase his happiness on earth, independently of the quantity of goods possessed.* It is enough for that purpose to lead an active life, ever to see and attain new results; in short, *to increase the angle of the "progress curve."* Precisely here lies the greatest wisdom of our Creator. It would be a great injustice if our happiness were dependent upon the absolute quantity of goods possessed. Were such the case, those born later would have far better chances for happiness than those born earlier; and it might be said, paraphrasing the well-known sentence of Mephisto in *Faust:* "Weh Dir, dass Du ein *Grossvater* bist!"

Thus in reality the possibility for happiness is given to everyone as a result of his own efforts, independently of the epoch or the place in which he lives. This has been understood by the great moralists of all ages. "The kingdom of God is within you," said Jesus. Socrates taught this truth by his life and his writings; the same was done by Seneca; in our own day it is expounded by Tolstoi.

Perhaps the life of one man means nothing in the world-economy; perhaps he is only a cellule, a link in a great chain, of some great purpose unknown to us, but for which humanity exists. This all may be. But God has given the same possibility for happiness to the cellules, whether living earlier or later; the same possibility for reaching our little final purpose —our personal happiness; the same possibility to all men of all times and all nations. And this possibility is given to us by the property of our nature that *our happiness depends principally on the surplus of goods which we possess, not on their absolute quantity.*

WLADIMIR KARAPETOFF.

WILKINSBURG, PA.

ASSOCIATIONS FOR HELPING THE BLIND.[1]

THE blind enjoy the compassion of their fellow-men perhaps more than many others that are suffering under the difficulties of life, likely because people consider a blind man a person much more unfortunate than other sufferers. Still this consideration was also the reason why the blind have been thought for such a long time unable to do any work, destined to gain their livelihood by beggary, because it is not much more than a hundred years since the first institution for teaching the blind was established at Paris. But in this short period of a century what great success has been attained! Blind children are not only able now to enjoy the same education as full-sighted ones, but in some countries they are even obliged to visit an institution in order to get the same education as their seeing brethren. It is true, writing and reading is rather a modern invention for the blind, and their books are still expensive, and therefore small in number; but by copying out what they cannot get printed for want of demand, by gathering these copied books into libraries in order to enable a greater number of them to read these books, they have not only been able to acquire a higher education, but the number of those that attend a university, and even pass examinations, increases from year to year.

About a year ago, a small international union was formed under the name "Association des aveugles étudiants," the object of which is not only to establish a scientific library for blind students, but still more to assist each other and to help also the poor among the blind, not only to study, but to get a position after leaving their studies, so that a blind student may no longer be an object of surprise, but that the number of those who have become useful members of society may increase. In these endeavors America is by no means marching behind the European nations.

[1] The author of this article is a blind gentleman in Leipzig, who has won a good position as a teacher of modern languages.

It is true, the number of those that have acquired a position in which they can earn what they want for life through what they have studied in science is small; but we are still in the beginning of this movement. A few years ago a blind man was hardly able to visit a university and pass an examination. The general want of confidence is perhaps the greatest obstacle that a blind man meets, and it is difficult to persuade our friends that they do us a much greater favor by giving us occupation, even for small pay, than by giving us presents.

It will be a good while before even a poor blind man may earn through his mental work, in which he must not be inferior to full-sighted people, just as much as they; and till then it must be our endeavor to render those happy that are forced to gain their livelihood by manual occupation, in which we cannot deny they are a good deal inferior to their seeing brethren.

What is the state of these unfortunate people now, and how are they to be assisted? Most blind people are much less independent than others. In early childhood their kind mothers will guard them from the rough approach of other boys. Then they are shut out from life by their education in an institution where they learn some trade. When they leave school, in which everything was arranged according to their state, shall we then expect them to be able to meet all the difficulties of life to which they are entire strangers? The real education for life through experience, which any other child has in the house of its parents without learning it, is still to come. In what way can a blind man earn his livelihood? Those who are not studying may do it in two different ways—either by music or tuning pianos, or by the practice of a trade. In music they are much less inferior to seeing people than in a trade. Their talent is mostly at least as good as that of a common musician, and their diligence often greater. They have musical notes which they can read with their fingers, and though the number of those that are playing in an orchestra is still small, as organists, music teachers, and even pianists they are performing their work well. But the state of the poor working blind man, and still more of the girls among them, is much less agreeable.

The trades they learn are mostly caning chairs, making brushes, baskets, ropes, paper sacks, and some similar articles in which a man with full sight can earn but very little. Besides, a seeing workman can add to his work many things to make it appear nicer, which will increase its price. Also selling and getting new orders is more difficult for a blind man as long as he must work alone.

Saxony is an industrial country. It has many great manufactories, and large parts of the country are inhabited chiefly by weavers and people that have only a small income. In such districts the number of blind people is not small, and, what is still more serious, they are very likely to become beggars. Not seldom they are even engaged by their own families, which are poor and of a low education, to live in this manner, which, no doubt, will bring them a little better income than making brushes or baskets. They do not mind that in this way they will fall entirely into immorality, and what they learned in the institution of Dresden may be lost in a few years. Such cases must be prevented, and, in order to prevent them, it is the first duty of the inspector at Dresden to find out whether it would be wise to send the pupil back to his people after leaving the institution. Then he must take care to find out what may be the most successful trade for him; and this he begins already while he is in school. After he has completed his studies, he remains in one of the large workshops of the institution, to complete learning his trade, because he must know it well enough to perform it without any master. This aim he has attained when he is eighteen or twenty years old, and then he is sent either to his family or to some other place which the inspector considers fit for him. How can he get on there? This question is more difficult to answer than many think. Most of them lack in their lives one of the most important periods of a seeing workman, the period when he was a journeyman. He has learned his trade as well as a blind man can, but he hardly knows anything of business life. Thus arranging a business himself is almost impossible. Even when kind friends would do it for him, he hardly understands how to meet his clients. Although

he may have a benefactor who understands business, he must remain a workman laboring separated from others. There are, to be sure, several who have a business which they themselves can carry on, and which is flourishing, and who are married and able to gain means for their families; but these belong mostly to those happier people who have a brother or a cousin with whom they may live, and who will teach them business life. Still, though working alone, the blind tradesman is never left alone. The institution of Dresden will take care of him throughout his life. When it cannot allow him to return to his family, or if he has no father or mother to live with, it will find a suitable place for him, where he may spend his days for a moderate sum. That is usually a simple family which will not make him a present, but which will also not earn a great deal through him. Not seldom it is a blind man who has a shop himself. There are even some colonies of blind people working together. The institution will buy materials for them. It will advertise their work, try to find connections with manufacturers for them, and, if they cannot sell all their work, it will do it for them. None of them receive regular assistance, but most of them get now and then financial help.

The blind workman is at a disadvantage working alone. Measuring and other processes which a man who can see does not need, will take him a good deal of time, and still his work very often is not quite what is expected. Besides, the making of baskets, brushes, ropes, paper sacks, stockings, or similar things are occupations which are pretty low paid even to seeing people. Thus it is easily understood that the income of the blind tradesman must be rather low.

The blind people of the working classes are rather modest, and not much is needed to make them happy—just a family of which they are considered a member, and which takes from them the chief difficulties of their trade and of their lives. There have been institutions for them, in which they were well cared for, but a man does not like to live only in order to eat and drink, but he wishes to have his share in the life of his fellow-men. Excluded from life and living as a monk, he feels fully his dependence; he feels how unhappy a blind person is.

Saxony has been the place where this excellent idea has not only been fully grasped, but where the inspector and the teachers of the central institution made it their duty to organize a real system. It is true, what the Germans pay for their poor people, even for their blind, is much less than what the Americans do; but the advantage of the German method is that it is much more centralized. They must consider: How can we arrange best with the little we have at our disposal? And besides, when all is in the hands of one great committee that can give commands, they have the power to carry out their decisions. And everything they arrange is done in a more centralized manner than if done by separated committees, and thus the small sum the Germans dispose of can often do just as much good as the greater gifts of America.

It is not an easy task to form a connection between all the blind tradesmen of one kingdom and their superintendent. These blind people have not very high education, and thus often do not risk stating their demands, and the less modest ones request things which one would call superfluous. But also on this side a very ingenious arrangement has been made. Each blind tradesman has his guardian, who is usually a rich gentleman—a manufacturer or merchant who is not too proud to care continually for one or more blind persons. Whenever they have a request for an expensive tool, a new coat which they cannot pay for themselves, they tell their guardian, who, after examining the request, will write a word to the institution and is sure that the want will be met. The father-like friendship of a wealthy and well-educated gentleman will keep them from mingling with bad society; and this happy arrangement costs nothing at all.

We hardly need to add that the institution at Dresden is anxious to spread more and more among the public the knowledge of what the blind can do, by lectures, exhibitions of their work, and articles in the papers. In other German countries this system is more or less completely introduced, and these ideas are spreading outside of Germany. Committees consisting of benevolent seeing people and better-educated blind ones

have been founded in these later years to assist the institutions in their work by taking part of the work on their own shoulders, and the formation of societies of the blind themselves is very useful. Helpful arrangements can be established, as libraries, reading-circles, and concerts.

And how is the state of the poor among the American blind people? This question will doubtless rise in the minds of those of our readers who have a heart for their fellow-men who are suffering under the difficulties of fate. Their education is by no means inferior to that of the Germans, because a good number of blind teachers are employed in the blind schools (in Germany very few). And where there is a lack of educated people there is also a want of means for educating themselves and others. Besides, music can much easier be taught to them than in Germany, because those of the German blind pupils that cannot learn enough to become teachers or organists are in great danger as to their morality, as evening parties, in which they might play the piano, are hardly ever arranged without drinking beer slowly during the whole of the evening. This danger does not exist for the American blind musicians, whose number is therefore much larger. The American blind girls are also much more than anywhere else occupied in the household.

The compassion for the blind is by no means less in America than in Germany; we are also sure that their energy in getting on is not inferior to that of others. But they are more isolated than the Germans. To find a family for each of them where they would not be considered as poor blind people, but as members of that family, to get a homelike place for them, would be a very thankful work for such a committee. As soon as such a committee is arranged, a good many things may be done for them which are rather difficult today. Libraries that enable them to complete their studies, connection between manufacturers or associations and the working blind people, even assisting the musicians, tuners, and typewriters in finding places, would then be much easier.

RICHARD HAUPTVOGEL.

LEIPZIG, GERMANY.

THE NEW WOMAN IN JAPAN.

We desire at the outset to disclaim any intention of using the term "new woman" in a jocose or satirical way. It is not our purpose to refer at all to such a creature as that called "new woman" in the Occident; for it has not yet appeared to any great extent among the Japanese. It may be true, in some cases, that the modernized Japanese woman is "without gentleness or refinement," and may be called a "parody of a man" or a "sickening sort of person." But, as the *Jiji Shimpo* explains, "the process of the new woman's evolution may be disfigured by some accident;" and "the new woman stands out with objectionable salience because her environment is so colorless."

Nor do we intend to treat even of the true and noble new woman, of whom Miss Ume Tsuda may conveniently be taken as a type, and who, having experienced the higher and better life, is striving to assist in the uplift of her sisters. We wish in this instance to consider, not the new woman in the concrete, in the flesh, but the abstract, legal new woman that has been created by the new Civil Code of Japan. In looking through the translation of that document by Mr. Gubbins, we have been deeply impressed with the possibilities which lie before the women of new Japan through the rights and privileges vouchsafed to them under that Code.

It is unnecessary to go much into detail on the somewhat trite subject of woman's position under the old régime in Japan. It should, however, be constantly kept in mind that in the most ancient times women were highly esteemed, and even "used to play an important part on the political stage." In Shinto the central object of adoration is the sun, which is worshiped as a goddess. There have been seated on the imperial throne of Japan eight empresses, one of whom is famous for her martial valor and military exploits. It was when Buddhism became powerful that Hindoo and Chinese conceptions of woman's position molded public opinion and thus eventually changed the

manners, customs, and laws of Japan so as to relegate woman to an abnormally inferior position. As only one striking example out of many possible illustrations of the relative positions of man and woman, we note that, in the case of the death of the husband, the law prescribed mourning garments for thirteen months and abstinence from impurity for fifty days; but, in the case of the death of the wife, mourning garments for three months and abstinence for twenty days were sufficient.

Mr. Gubbins in the introduction to Part II of his translation of the Civil Code, writes as follows:

> The legal position of women in Japan before the commencement of modern legislative reform is well illustrated by the fact that offenses came under different categories according to their commission by the wife against the husband, or by the husband against the wife, and by the curious anomaly that, while the husband stood in the first degree of relationship to his wife, the latter stood to him only in the second.[1] The disabilities under which a woman formerly labored shut her out from the exercise of almost all rights. She could not inherit or own property in her own name, she could not become the head of a family, she could not adopt, and she could not be the guardian of her child. The maxim, *mulier est finis familiae*, was as true in Japan as in Rome, though its observance may have been less strict, owing to the greater frequency of adoption.
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> In no respect has modern progress in Japan made greater strides than in the improvement of the position of women. Though she still labors under certain disabilities, a woman can now become the head of a family and exercise authority as such; she can inherit and own property and manage it herself; she can exercise parental authority; if single, or a widow, she can adopt; she is one of the parties[2] to adoption effected by her husband, and her consent in addition to that of her husband is necessary to the adoption of her child by another person; she can act as guardian or curator; and she has a voice in family councils.

Moreover, although it is true that for the performance of certain acts (Art. 14) a wife must obtain her husband's permission, and that a wife's acts may be annulled by her husband (Art. 120), yet it is explicitly stated that "a wife who has been permitted to engage in one or more businesses possesses in regard thereto the capacity of an independent person."

[1] Since 1882 they have been upon the same basis.

[2] These are composed of a large circle of relatives, and exercise autocratic influence in most important questions.

But let us look a little more particularly into the provisions relating to marriage, divorce, etc. The marriageable age is seventeen full years for men and fifteen full years for women. Marriage takes effect when notice of the fact is given to a registrar, by both parties with two witnesses. From this it will appear that the ceremony is a "purely social function, having no connection whatsoever with law beyond the somewhat remote contingency of its being adducible as evidence of a marriage having taken place." And here is where some Japanese Christians make an unfortunate and sometimes serious mistake, in thinking that the ceremony by a minister of the gospel is sufficient and registration is a matter of convenience. *Without registration a marriage is not legal.*

The right of marriage is not free, except to the head of a family.[1] All other persons, whatever their ages, can marry only with the consent of the head of his or her family. Men under thirty and women under twenty-five cannot marry without the consent of the parents; and minors in some cases must obtain the consent of the guardian or even of a family council.

In Art. 790 it is stipulated that "a husband and wife are mutually bound to support one another." A husband manages the property of his wife, unless he is unable to do so, when she manages it herself. "With regard to daily household matters, a wife is regarded as her husband's agent."

There are two ways of effecting divorce: either by arrangement, which is effected in a similar way to marriage—that is, by simply having the registration of marriage canceled—or by judicial divorce, which may be granted on several grounds specified in the Code. But divorce by arrangement cannot be effected by persons under twenty-five years of age without consent of the person or persons by whose consent marriage was effected. And if the persons who effect this kind of divorce fail to determine who is to have the custody of the children, they belong to the father; but "in cases where the father leaves the family owing to divorce, the custody of the children belongs

[1] The word "family" is here and hereafter used in a technical sense, peculiar to Japan, of a group of the same surname. In old Japan the family was the social unit.

to the mother," evidently because she remains in the family. In other words, children are chattels of the family.

The grounds on which judicial divorce is granted include bigamy, adultery on the part of the wife, the husband's receiving a criminal sentence for an offense against morality, cruel treatment or grave insult such as to render living together unbearable, desertion with evil intent, cruel treatment or gross insult of or by lineal ascendants.

The new Civil Code indirectly sanctions concubinage by stipulating (in Art. 827) that "an illegitimate child may be recognized by the father or mother" by giving notice to a registrar. Such a child is called *shoshi*, but is not legitimized. It is, however, stipulated (in Art 728) that between a wife and a *shoshi* "the same relationship as that between parent and child is established." That seems clearly enough to mean that a wife must accept a concubine's child as if it were her own, in case the father "recognizes" it. This would appear to be little, if any, advance over the old régime, where "the wife of the father," as she was technically called, frequently had to accept as her own child that of a concubine.

Mr. Gubbins makes the following explanation of *shoshi:*

> This term illustrates the transitionary phase through which Japanese law is passing. Japanese dictionaries define *shoshi* as the child of a concubine, and this, so long as concubinage was sanctioned by law, and the question of legitimacy never arose, was the accepted meaning of the term. The law of Japan, which, in the course of its development on western lines, has come to accept the principle of legitimacy, and to admit of the legitimization of children by the subsequent marriage of their parents, now recognizes an intermediate stage between legitimacy and illegitimacy.

Such is the general outline of the legal status of woman according to the new Civil Code. It will undoubtedly be most interesting to watch the gradual evolution of a new woman in Japan as the outcome of this legislation. It remains to be seen how far the social status of woman will be improved. It is not at all likely that her actual position will be immediately advanced in any great degree. It is probable that custom will continue, for a while at least, to wield a mightier influence than the Code; and that, as Mr. Gubbins remarks, "the present transitional con-

dition of Japanese society may favor a rule being honored more in the breach than in the observance." But it will probably not be long before here and there certain women will claim the rights accorded by law and will find a corresponding improvement in their social condition; and thus the general position of the Japanese woman will gradually be advanced.

Since writing the above, we have had the pleasure of reading the revised and illustrated edition of Miss Alice M. Bacon's *Japanese Girls and Women*, and cannot refrain from making some references to it along the line of this article. In that excellent book, which is a sure and safe authority on matters pertaining to the female half of Japan, the author traces very clearly the progress that has been made in the condition of woman, and shows how "better laws, broader education for the women, [and] a change in public opinion" are still necessary. And she affirms that "we can feel pretty sure that, when the people have become used to these [recent] changes [of the new Civil Code], other and more binding laws will be enacted, for the drift of enlightened public opinion seems to be in favor of securing better and more firmly established homes."

It is, moreover, worth our while to make even a lengthy quotation, as follows:

> The woman question in Japan is at the present moment a matter of much consideration: There seems to be an uneasy feeling in the minds of even the more conservative men that some change in the status of women is inevitable, if the nation wishes to keep the pace it has set for itself. The Japanese women of the past and of the present are exactly suited to the position accorded them in society, and any attempt to alter them without changing their status only results in making square pegs for round holes. If the pegs hereafter are to be cut square, the holes must be enlarged and squared to fit them. The Japanese woman stands in no need of alteration unless her place in life is somehow enlarged, nor, on the other hand, can she fill a larger place without additional training. The men of new Japan, to whom the opinions and customs of the western world are becoming daily more familiar, while they shrink aghast, in many cases, at the thought that their women may ever become like the forward, self-assertive, half-masculine women of the West, show a growing tendency to dissatisfaction with the smallness and narrowness of the lives of their wives and daughters — a growing belief that better-

educated women would make better homes, and that the ideal home of Europe and America is the product of a more advanced civilization than that of Japan. Reluctantly in many cases, but still almost universally, it is admitted that in the interest of the homes, and for the sake of future generations, something must be done to carry the women forward into a position more in harmony with what the nation is reaching for in other directions. This desire shows itself in individual efforts to improve by more advanced education daughters of exceptional promise, and in general efforts for the improvement of the condition of women.

And Miss Bacon, like all careful observers, is able to appreciate what Christianity has done and is doing for the elevation of Japanese women, and ready to acknowledge that Christian thought and public opinion expedite legislation.

ERNEST W. CLEMENT.

TOKYO, JAPAN.

REVIEWS.

Die Frauenfrage: ihre geschichtliche Entwicklung und wirtschaftliche Seite. Von LILY BRAUN. Leipzig, 1901. Pp. xii + 557.

IT is somewhat remarkable how frequently the subjects which are most discussed receive the least serious study. Of this fact perhaps the most striking example is afforded by the fiery arguments ranging around the position of women. There must be many thousands of articles dealing with this matter to be found in the magazines of the last sixty years; there are not a few partisan books. But of genuine study, of patient thought and investigation, there is hardly a trace. To take the earliest book on the subject, Mary Wollstonecraft's work is the wail of a woman suffering under the restrictions imposed on her sex; it is not a consideration of the questions how these restrictions arose, to what extent they are justified by fact, and what effect might be expected from their abolition. John Stuart Mill's famous pamphlet, *The Subjection of Women*, is a mere one-sided and rhetorical outburst, composed under the immediate influence of Mrs. Taylor. Mrs. Stetson's clever little book is rather the brilliant suggestion of a new hypothesis than its careful working out through the actual study of fact. In short, all the books on this subject have been composed under the auspices of the abstract and destructive liberalism of the beginning of the last century, of that individualism which believed so fervently in the prescience and power of "nature" that it expected the happiest results from the mere abolition of all artificial regulations. The rise of the new economics, which bases its conclusions rather on historical study and on patient investigation of existing conditions than on abstract reasoning, has resulted in the description of many economic institutions. It has produced monographs on mediæval craft guilds, on trade unions, on the organization of modern business, on the growth of trusts. But, save incidentally, no economist of this school has condescended to investigate the economic aspects of the position of women. There is, indeed, Bebel's work, but it is too much permeated by the doctrines of the German Social Democracy to be accepted as an outcome of serious research into the actual facts.

But the book before us is of quite another stamp. True, we dis-

cover in the last chapter that the author is in sympathy with the views of the Social Democrats. But each page bears the impress of careful and independent thought, and of thorough study of all available material, coupled with very considerable ability in the employment of statistics. This is by far the most impartial and the most far-sighted work on the position of women which has yet seen the light, and presents some new and interesting views to the reader. Its full title is *Die Frauenfrage: ihre geschichtliche Entwicklung und wirtschaftliche Seite*, and we are told in the preface that it is to be followed by another volume dealing with women's civil and public rights, and discussing the ethical and psychological aspects of the question. The present work is devoted entirely to the economic side. It begins with a section giving a brief historical summary of women's position prior to the nineteenth century. Frau Braun points out how the older histories, dealing almost exclusively with wars and politics, took naturally very little notice of the work of women, and it was not until the proletariat, freed from slavery and serfdom, and awakened into some measure of self-consciousness, aroused interest in the study of economic history, that any attention at all was devoted to the position of women.

There are two assumptions here, both of which demand justification. The first is that the study of economic history was first stimulated by the growing interest in the demands and discontent of the working classes of Germany. On this point the reviewer cannot speak; but the assumption certainly seems to hold true of England. The two earliest investigators of English economic history were Arnold Toynbec and Thorold Rogers, and their attention was certainly first directed to the matter by active interest in the condition of the working class of their own days. The second assumption is one which Frau Braun's later chapters show to be only partially justified; namely, that the agitation for an improvement in the position of women is closely connected with the argument for an improvement in the position of the manual workers.

Beginning with the period of the *Mutterrecht*, the author shows how at every stage it was economic conditions, the methods of producing and distributing wealth, that decided the position of women. In the period when food was won by hunting, the man had no use for the services of the woman beyond mere sexual enjoyment, nor for the children. The mother therefore possessed full rights over the child; mother and child at this period were the germ of the future civilization. But with the oncoming of the agricultural period, woman lost

her freedom and passed into the child-bearing chattel to be bought from her father in exchange for arms or cattle. For under this more settled form of life her services were useful in many ways, and the possessor of cattle and lands desired a lawful son to be his heir. Therefore the tie of marriage originated in no lofty ethical motive, but arose, like slavery and at the same period, for economic causes. The discussion next briefly touches the status of women in the oriental nations, in Greece and in Rome. And here Frau Braun's writing is less clear and impressive than usual. She seems for once to be working with secondary material and to have little first-hand acquaintance with the subject which she treats.

Her description of the Middle Ages, on the other hand, gives distinct evidence of original investigation. She discusses with much skill the relation between Christianity and the position of women; showing that at first Christianity aimed no more at emancipating the woman than at freeing the slave, and that indeed the fathers of the church and the canon law treated the woman as an unclean temptress, and therefore rightly subordinate to the man. But in two ways this attitude was modified: First, by the influence of the German views of women. The *Wehrgeld* of a murdered woman was twice that of a murdered man, "because" says Frau Braun, "they honored the mother in every woman." In the second place, the sight of many holy women living useful and even learned lives in the cloisters increased public opinion of women's powers and capabilities. The chapter specially devoted to the economic position of women in the Middle Ages is unusually interesting. It shows that the concentration of many workers in one establishment is not an invention of the industrial Revolution, as people so often assume, and it traces the close connection between the waxing and waning of prostitution and the economic prosperity of the independent woman worker. Another well-written chapter deals with the women of the French and American Revolutions. A short account is given of Mercy Otis Warren and Abigail Smith Adams, *Die ersten Vorkämpferinnen der Gleichberechtigung des weiblichen Geschlechts;* and there follows a somewhat detailed narrative of the work and writings of Olympe de Gouges, and of the woman's movement during the French Revolution — a movement, it may be noticed, which greatly influenced Mary Wollstonecraft, and so through her the world of educated English-speaking women.

But while this sketch of historical and economic development is well done, by far the most interesting part of the book is that which

deals more in detail, and with a fuller employment of economic discussion, with the woman's movement in the nineteenth century. This falls into two divisions: the first describes the fight of the middle-class woman for employment, *Der Kampf um Arbeit in der bürgerlichen Frauenwelt;* the second discusses the allied, but in some respects divergent, movement among the working-class women — *Die Arbeiterinnen.*

The first question taken up is the reform in education, and Frau Braun shows how this comes about from the need of earning a livelihood. The changed economic conditions of the beginning of the last century, the break-up of the domestic industry, the disappearance of the semi-patriarchal family of earlier times, also the absorption of men by the great wars of the period, left many solitary or widowed women face to face with the necessity of providing for their own wants. For the women of the working classes, the first steps were easy. The growth of machine industry demanded more and ever more cheap labor. The women of the middle class, on the other hand, found this path blocked alike by their lack of general education and special training, as well as by their definite exclusion from those fields of work wherein their fathers and brothers gained their incomes. Accordingly, the one cry of the middle-class woman is for equality with men, equality of opportunity, equality of education, equality of political rights. Frau Braun traces the progress of women's education in the various civilized countries of the world, noting at the same time the different professional careers open to them. In both these matters America leads the world; but, says Frau Braun, "one must take into consideration that not merely the greater generosity or the deeper comprehension of the American man for the strivings of the feminine sex is the cause of this, but to a much greater extent the fact that the United States looked back upon only a short period of economic development, and that there was no thought of an overcrowding of professional careers which would inevitably have called forth the opposition of men." One is tempted to conjecture that the present movement against coeducation is due to the fact that this overcrowding of the professions has now begun to appear, and that therefore American men are instinctively endeavoring to check the nascent competition of women in these spheres.

The author next proceeds to discuss the compelling motives of the middle-class women's movement. She gives some useful statistics showing the proportion of women to men in the different countries

and population-classes of the world, and discusses the causes why marriages in the professional classes take place now at a later age than formerly. She considers the question of the number of women engaged in industry and the proportion of occupied married women.

Another chapter treats some more general questions in connection with the labor of professional women. The author evidently firmly believes in women's intellectual power and holds that many of their physical disabilities have been exaggerated. She thinks also that when once the first ardor of revolution, with its inevitable tendency to mannishness, has passed by, women who work need lose none of their proper grace and charm — a view which is certainly borne out by facts. It is quite remarkable how the younger generation of professional women differ in this respect from the older. If a teacher or doctor is dressed without taste or tidiness, if her manners are rude or brusque, it is ten chances to one that she is well over forty, and so must have been among the pioneers of the women's movement. Frau Braun also discusses at this point, solely with reference to the professional woman, the difficult question of the extent to which her economic activity may interfere with home life and the proper care of children. We gather that, provided the work of housekeeping can be taken off her shoulders, Frau Braun thinks that a professional career is not impossible for a childless woman, or one whose children no longer need her constant attention, though apparently even in this case she would, under present circumstances, advise that such a woman should enter on charitable work, on poor-law and school administration, rather than attempt to earn her own living. She treats with great contempt the tales sometimes told of American women, "who as physicians or lawyers have large practice, in addition personally manage their houses, and care for and educate successfully a dozen children." These are "fairy-stories, and only the lecturers of the middle-class women's movement, who are unfortunately so frequently unmarried or childless, would be naïve enough and spread them abroad." But she cherishes the hope that the development of more modern methods of housekeeping, coupled with the co-operative employment of trained nurses and kindergartners for the care of children, may bring about the solution of this difficulty. But it must be admitted that she puts the drawbacks of married women's labor much more forcibly than its possible development under these hypothetical new conditions.

Finally, she discusses the question of the mental caliber of women, and gives utterance to a prophecy that women will in future win

special renown for themselves in the sphere of economics. In England there is evidence to bear out the truth of this belief; in this country, on the other hand, economics seems to be looked on to a marked extent as a masculine field of work.

In turning to the second branch of the nineteenth-century women's movement, we find ourselves in an entirely new atmosphere. Among middle-class women the agitation is entirely for equality with men and for freedom from restriction, and the presence of these restrictions or social prejudices often producing a legal or virtual masculine monopoly of certain branches of work gives rise too often to fierce antagonism to men. Hence the middle-class movement is definitely a woman's movement. Among the manual workers, on the other hand, there is only rarely the question of the right to entrance on a trade. The growth of machinery facilitates the employment of women outside their own home, and the women of the proletariate find no lack of opportunity for work. Unfortunately they bring with them the customs and habit of mind bred by centuries of a lonely and dependent existence. Their standard of life is lower than the man's, and too often their wages are subsidized by their parents, their husbands, or their lovers. Therefore, says Frau Braun, such a woman "seeks to conquer her masculine competitor, not by better work, but by lower demands." Hence she was an easy prey to the exploiting force of modern capitalism, and on page after page Frau Braun paints the low wages, the long hours, the wretched conditions of work found in one woman's industry after another. She gives statistics, which have every appearance of being carefully selected and put together, concerning the numerical proportion of the *Arbeiterinnen* to professional women, the increase in the number of working-women, the proportion of men to women engaged in manual industry, the growth of home work, etc. Among other unexpected facts which appear from these figures, we learn that the employment of working-women is greatly increasing in Austria, and that the proportion of wage-earning women to men is lower in America than in any other of the countries cited, the numbers being:

United States - - -	24.7 per cent.
England - - -	36.7 per cent.
Austria - - - -	54.9 per cent.

For middle-class workers the corresponding figures are:

United States - - -	18.75 per cent.
England - - -	22.33 per cent.
Austria - - - -	12.23 per cent.

The following chapter, the longest in the book, is devoted to an exceedingly interesting and carefully worked out description of the position of women in various branches of industrial life—in the "great industry," in house industry and home work, in trade, in agriculture, in personal and domestic service. The sections on home work and on domestic service are particularly original. Home work, Frau Braun points out, has today little resemblance to its earlier namesake. The growth of home work does not mean a return to the independent producer; it by no means signifies a reversal of the industrial revolution, as charitable ladies among the English aristocracy sometimes imagine. It is rather an unfortunate growth springing from the very stem of factory industry itself. Home work increases because by its means the employer avoids the expense of rent, up-keep, lighting and warming his factory; because among home workers he can find cheaper and more docile labor; because the very irregularity of the labor is to him an advantage, since when employing it he can increase or decrease his staff at will, without having to take into consideration the item of fixed charges. Home work is, indeed, "a bastard child of the great industry which it has produced with its concubine, grinding poverty."

The question of domestic service is very carefully studied, both from its descriptive and statistical side; wages, board, lodging are discussed, and the picture drawn of the maids' rooms in a German household is very unpleasant. But Frau Braun, like many others who have studied this subject, comes to the conclusion that the greatest drawbacks to domestic service are to be found in its still semi-feudal character, in the lack of free time, and in the moral dangers which, by the statistics of prostitution, she shows undoubtedly exist. According to one American reckoning, 47 per cent. of prostitutes had been domestic servants. The remedy, she thinks, is appearing before our eyes, if we would but see it. The gradual removal of much housework from the sphere of the home, as, for example, in the greater employment of steam laundries, is gradually bringing washing, cooking, and cleaning into line with the development of modern industry, and so freeing domestic service from its semi-feudal character. But here, like most other thinkers on the subject, Frau Braun appears to the reviewer too optimistic, when she at the same time believes that the increase of married women's labor is a desirable development. To a large extent the problem of domestic service can be solved as suggested; washing can be transferred to steam laundries; the use of prepared foods in cooking is increasing; the employment of experts

for thorough cleaning will certainly appear before long. But so long as home-life continues—and the love for it is too deeply rooted among the Anglo-Saxon and Germanic races to vanish before even a revolution of our economic conditions—so long will every family require the major part of the time of at least one woman in order to keep its home running smoothly and to foster that atmosphere of rest and recreation necessary if the workers in the outside world are to be properly invigorated for their toil. And this conclusion seems rather to lead to the view of several notable English women economists (*e. g.*, Mrs. Sydney Webb and Miss Clara Collet) who believe that, while it should be our aim to foster independence among unmarried women, and to encourage them in every way possible to earn their own living, the married women should be counseled rather to devote themselves to the task of home-making and of bringing up their children; they should not by accepting a pocket-money wage bring down the wages of the woman who has only her own exertions to depend on. But if this conclusion be adopted, we cannot hope ever to see women's work attain anything like the same level of efficiency as men's, nor again can we expect more than a partial introduction of scientific and up-to-date methods of housekeeping, which depend on a concentration and gradation of labor impossible in the single household.

The remaining chapters are devoted to the working-women's movement (*e. g.*, the enrolment in trade unions and clubs) and to the relation of the middle-class women's movement to the questions of women's labor in the manual working classes; and, finally, there is a chapter on factory and other social legislation and its problems. The author returns again in these chapters to the note which she struck at the beginning of the treatment of women's work in the nineteenth century —the difference in the attitude of the professional and working-class women. The one has to fight for an opportunity to work at all, and therefore her cry is for equality. She distrusts the law, and her attitude toward men is mostly antagonistic. The other finds work in plenty, but she is forced by poverty and lack of power to combine to accept work at wretched prices and under miserable conditions. Therefore to her the law, prescribing by factory legislation the minimum conditions of employment, is not an enemy, but a friend, and she combines more readily when grouped with her masculine fellow-workers (as Frau Brown points out, following Mrs. Sydney Webb, it would rarely be accurate to call them her competitors) than with her own sex.

Therefore the conclusion is reached that it is very unwise for the professional woman to assume hastily that her own experience holds good for her working-class sister, and in particular it appears that the establishment of women's trade unions under the patronage of "ladies" has been a complete failure. The working-woman should rather cultivate solidarity with her own class, by acting, not in opposition to, but in concert with, the men of it. And for the same reason factory legislation is not to be considered, as it frequently is in England, in the same light with the restrictive legislation which now shuts out middle-class women from so many spheres. It is, Frau Brown maintains, in reality a restriction, not on women's labor, but on the power of exploitation of capital — a power which has fewer terrors for the brain-worker, with her higher standard of life, and her "rent" of ability and education. She discusses at some length the question of married women's labor in factories, holding that, save in some few trades, it would be both unwise and impossible to exclude them altogether, since such a course would lead to increase of home work and to concubinage and concealment of marriage. It may be noticed that the latter result is said to have already come about in the post-offices of England and America, as a consequence of the civil-service rule forbidding the employment of married women. She would instead advise stringent regulations concerning work before and after confinement, combined with a generous payment from the sick-insurance fund. In England and America this might be replaced by the provision of lying-in hospitals —a method more in accordance with our traditions. The general sketch of factory legislation is very well done, being both full and readable. It is accompanied by several tables showing the condition of factory legislation and of insurance in the various countries.

In short, this is by far the most thoughtful, thorough, and comprehensive work that has appeared on the subject, and, though we may not always agree with the author, especially when in the last chapters her bias toward Social Democracy becomes evident, her treatment always shows accurate knowledge of the facts and a careful consideration of general principles. Her book is also remarkable because it for the first time sets forth and endeavors to reconcile the different motives and aims which underlie the women's movement in the middle and the working classes, respectively.

MABEL ATKINSON.

BRYN MAWR COLLEGE.

The Story of the Mormons, From the Date of Their Origin to the Year 1901. By WILLIAM ALEXANDER LINN. New York: The Macmillan Co. Pp. 637. $4.

THE object of the work, as stated in the preface, is "to present a consecutive history of the Mormons from the day of their origin to the present writing, and as a secular, not as a religious, narrative." The work is a careful research based upon materials derived from both Mormon and non-Mormon sources. Several pages of the preface are devoted to explanatory statements regarding the sources from which the material used has been drawn. Throughout the work the author has indicated, by means of footnotes, the authority for the materials used. An unusually complete table of contents and index render the book a convenient one for reference. It is illustrated with facsimile prints of the Kinderhook plates, the title-page of the first edition of the Mormon Bible, the Book of Abraham, and an altered Kirtland bank-note.

The work is divided into six books, the first of which treats of the origin of the Mormons. The following four books are devoted, respectively, to an account of their migration to and life in Ohio, Missouri, and Illinois, and their final migration to Utah. The last book, which consists of twenty-six chapters, treats of their life in Utah.

In referring to the situation out of which Mormonism arose, the author sees no cause for surprise in its remarkable development as a religious organization. That which seems wonderful to him is "its success in establishing and keeping together in a republic like ours a membership who acknowledge its supreme authority in politics as well as in religion, and who form a distinct organization which does not conceal its purpose to rule over the whole nation." The life of Joseph Smith is traced from his boyhood in Vermont, where he professed to have his father's gift in the use of the divining-rod, to the time when he declares himself a prophet and begins to found a new religion. The author shows that the deciding event in the career of Joseph Smith was a trip to Susquehanna county, Pa., where he obtained the idea of becoming a "gazer," and where he probably first met Sydney Rigdon, whom the author shows to be the "real originator of the whole scheme for a new church." The remainder of Book I is devoted to a history of the Mormon Bible, in which the author shows the various factors that were involved, and the especially prominent part taken by Sydney Rigdon, who is not generally recognized as having anything to do with

the work; and to the organization of the church, the beliefs and doctrines of the Mormons, and their church government.

The four following books, which treat of the Mormons in the period of the migrations, are based largely upon the aims and objects of the leaders as presented in the "Mormon Bible" and the "Doctrine and Covenants." The latter work consists chiefly of the revelations which "directed the organization of the church and its secular movements," and hence is invaluable as a means of determining the methods of the leaders in controlling the people. Although each of these chapters is full of interest, perhaps chap. 6 of Book III, which gives an account of the revelations received at the time of the organization of the Danites, and those chapters in Book IV which treat of the nature of the city government at Nauvoo and the revelation regarding polygamy, will best enable the reader to understand the nature of the objections of the people of Missouri and Illinois to their new neighbors.

The interest which is centered in Joseph Smith up to near the close of the period of their settlement in Illinois, after the death of Smith is transferred to Brigham Young, who maintained an autocratic rule up to the time of his death. The last book, which deals with the history of the Mormons in Utah, is of interest not merely because it gives an accurate account of pioneer life in a region almost cut off from communication with the outside world, but on account of those methods of government, social habits, and modes of thought which differ from those in other parts of the United States, and which seem in some respects to be a reversion to an earlier stage of culture. The closing chapters treat of such questions as the relation of the Mormon people to the federal government, the importance of a federal constitutional amendment forbidding polygamous marriages, and the scope of the Mormon political ambition.

Although the facts presented in many instances are such as would naturally call forth the expression of strong feeling, the author has adhered to his purpose of searching for facts, and has uniformly refrained from drawing conclusions. Only by a faint touch of humor or a pungent remark after presenting the facts which show the methods adopted by the Mormon leaders for obtaining their ends does the author in any way give expression to his own feelings upon the subject.

KATHARINE E. DOPP.

CHICAGO.

Pure Sociology: A Treatise on the Origin and Spontaneous Development of Society. By LESTER F. WARD. New York: The Macmillan Co. Pp. xii+606. $4.

A GROUP of writers will be invited to discuss in this JOURNAL salient features of this work. Meanwhile we record its appearance, and congratulate author, publisher, and the sociologists. A New York daily paper lampooned the book in a column editorial. It was a gratuitous advertisement of the effect which scientific treatment of any subject has on the hobo type of mind. A few days earlier the following was written in a private letter, by an American who has been studying philosophy and sociology in Germany for three or four years, after graduation from college and then from a newspaper office in this country:

> It seems to me that the most important thing is self-knowledge, the knowledge of what you are doing in the world, and why you are doing it. America lacks self-knowledge, it seems to me, in several directions. No nation in the world seems to me so passionately engaged in *doing* as America, and hardly any nation to be doing it so blindly.

Some of us think that the sort of thing which Dr. Ward is doing will pay larger social dividends, in the long run, than any equal investment of energy in any other direction. We shall never know ourselves, individually or socially, till someone finds us out and helps us see ourselves in our processes of coming into being and of completing our being. Such knowledge is too wonderful for most of us at present, but a few minds demand it, and more will learn to swell the demand. It will be a long time before a more important contribution to social self-knowledge appears between the covers of a single book.

A. W. S.

Heredity and Social Progress. By SIMON N. PATTEN. New York: The Macmillan Co. Pp. 214. $1.25.

THERE is poetic justice in Professor Patten's conversion from a most inveterate prosecutor, if not persecutor, of the "biological sociologists," and his appearance, not merely as a sociologist, but as one outbiologizing them all. I humbly confess this essay is beyond my depth. I shall make diligent search for someone to expound it. The vital and the psychical still seem so unlike to me, and both of them are still so mysterious, that putting the two mysteries together in this

familiar fashion raises in my mind more doubts than it settles, not merely about the combination, but about the components. I fear that Professor Patten is not even, as he hopes, on the main line to truth *via* the route recommended by Huxley: (p. vi). "If you can't be right, be dead wrong." To be incomprehensible is neither.

A. W. S.

The Woman Who Toils: Being the Experiences of Two Ladies as Factory Girls. By MRS. JOHN VAN VORST AND MARIE VAN VORST. New York: Doubleday, Page & Co. Pp. 303.

THIS is the book which called out the now famous letter of President Roosevelt on the subject of parenthood. The letter is printed as a preface. It does not appear, by the way, that either of the authors is a mother, but they seem to have willingly posed to point the president's moral, in exchange for his advertising. As records of adventure the chapters are readable, in spite of a tinge of caddishness in keeping the reader reminded that the adventurer was a "lady," able at any moment by a "presto" to spirit herself into another world. One is unable to decide how much of a lark, and how much of serious investigation, was in the enterprise that collected these first-hand observations. It is equally impossible to decide whether this indeterminable state of mind was competent to receive correct impressions of the subjective conditions encountered. The sketches will have to count, therefore, as specimens of amateur social photography. As studies of the view-point of the woman who toils their value is dubious.

A. W. S.

NOTES AND ABSTRACTS.

Pedagogy and Sociology. — I consider as the very foundation of all pedagogical speculation that education is a thing eminently social, judged from its origin and by its function; and that, therefore, pedagogy depends upon sociology more directly than upon any other science. Until recent years teachers have considered education as chiefly individual, and pedagogy, therefore, an immediate corollary of psychology alone. By Kant, Mill, Herbart, and Spencer education had for its object the highest possible realization of the attributes constitutive of the human species in general. There was *one* human nature, the forms and properties of which are determined once for all, and the pedagogical problem was how to engage and employ that nature, thus completely given and latent in the child. The educator had nothing essential to add to the work of nature; he created nothing. His business was to exercise the existing powers of the child lest they atrophy through inaction, be warped in their moral direction, or develop too slowly. Since man was possessed of and furnished with these powers, it followed that a study of man, and of man as an individual, would determine how his development should be directed. The important thing was to know what are his native faculties and what are their characteristics. But the science which describes and explains the individual man is psychology, and it seemed, therefore, that psychology ought to suffice for all the needs of pedagogy.

But, unhappily for such a view, it finds itself at odds with all that history teaches. Different systems of education have always existed and functioned side by side in every society. Education varies from one caste to another; that of the patricians was not that of the plebians, that of the Brahman was not that of the Cudra. Even now education varies with social classes and even with communities; that of the *bourgeois* is not that of the laborer, that of the city is not that of the country. Each profession constitutes a method *sui generis* for bringing out the special powers and aptitudes of the child. In every civilized country there is a tendency more and more to diversify and specialize.

But it is evident that these special schools or systems of education are not organized for individual ends. It is true they develop the special abilities of the individual and in this sense are individual. But it is society, in order to maintain itself, demanding this division of labor and that according to the special abilities of its members, which creates these special schools. It is by society and for society that education is thus diversified. And further, this determining influence of society upon the education is easily demonstrated from history. Each type of people has its own education, peculiar to itself and which can be described under the same name as its moral, political, and religious organization. Consider how at one time education teaches the individual to give himself completely into the hands of the state, and how at another time it is designed to make him the director of his own conduct; education was ascetic in the Middle Ages, liberal at the time of the Renaissance, literary in the seventeenth century, and is scientific in our own time. This is not because men have been mistaken as to the nature and needs of man, but it is because his needs have varied, and these have varied because the social conditions upon which human needs depend do not remain the same.

That education has been directly dependent upon social conditions is easily recognized in history, but somehow we think our system of education to be independent of our social system. But it would be strange if education, after having had during these centuries, and in all known societies, all the characteristics of a social institution, should in our time so completely change its nature. A strange transformation it would be when, at the very moment in which it is thought to have taken place, the most striking fact in the education, not only of France, but of all

Europe, is that it is being put more and more into the hands of the state, is made more and more a social institution. No, our pedagogical ideal is explained by our social structure as truly as was that of the Greeks and Romans by the organization of their states.

Not only is it society that has elevated mankind to the dignity of the model which the educator ought to strive to reproduce, but it is society which fashioned the model and fashioned him according to her own needs. The man that education ought to realize in us is not the man such as nature has made, but such as society wishes he should be. If there exists a hierarchy of our faculties, if to some of them we attribute a sort of precedence, and which we ought therefore to develop more than the others, it is not because that dignity is intrinsic, it is not that nature from all time made them thus, assigned them an eminence of rank; but it is because society has set a high value upon them. This scale of values, this hierarchy of faculties, never remains the same through two successive periods of history. At one time it was courage that held first rank, together with all those faculties that implied the military virtue; now it is thought and reflection; in the future it will perhaps be refinement of tastes and sensibility of art. Thus in the present, as in the past, our pedagogical ideal is, even in details, the work of society. It is society that draws the portrait of the man we ought to be, and in this portrait come to be reflected all the characteristics of the social organization.

Simply for convenience of expression it might be said that in each of us there exist two beings (*êtres*). The one is made up of all the mental states which refer only to ourselves and to incidents of our personal life. This may be called the individual being. The other is a system of ideas, of sentiment, of habits, which acquaint us, not with our own personality, but with the group or the different groups of which we are a part; such are the religious beliefs, the practical and moral beliefs, the national and professional traditions, the collective opinions of all sorts. Their *ensemble* forms the social being. To create this being in each of us — this is the end of education. This social being is not given ready-made in the constitution of primitive man, nor is it a result of spontaneous development. Spontaneously, man was not inclined to submit to a political authority, to respect moral discipline, to sacrifice himself. It was not given to us at birth to be disposed to serve divinities, emblems symbolic of society, to render them a worship, to deny ourselves for their glory. It is society itself which has drawn from its own life those great moral forces coming into contact with which man has learned his own inferiority.

But if sociology is preponderant in determining the end of education, has it the same importance in selecting the means? In choosing means and working out methods, psychology surely claims some consideration. Through psychology of the individual we come to know something of the individual through which are to be realized the ends that society marks out. But when it is remembered that the individual is not completely known until studied also through social psychology, it may still be an unsettled question as to the adequacy of psychology as usually conceived for determining method. We all know with what caution and with what limits, even in choosing methods, the principles of psychology are acted upon or accepted. Again, society, determining the aim, or, better, the aims, of education, must reasonably have something to say as to the means. Historically this has been true. When society was individualistic, whatever in education tended to do violence to the individuality was frowned down. In fact, whenever educational systems have been profoundly changed it has been under the influence of some great social movement felt throughout the group-life. It was not in consequence of some psychological discoveries that the Renaissance opposed new methods to those of the Middle Ages; it was that, in consequence of changes in the structure of European societies, a new conception of man and of his place in the world had taken place. Neither Basedow, nor Pestalozzi, nor Froebel, was a great psychologist. Regard for natural liberty, hatred of all oppression, love for a man, for a child — these express their doctrine, these are the basis of our modern individualism.

Thus, whether we consider the ends of education or the means it employs, they agree with, if they are not determined by, social conditions. It is the collective ideas and sentiments of a people that its educational system expresses. — E. DURKHEIM, "Pédagogie et sociologie," in *Revue de métaphysique et de morale*, January, 1903.

T. J. R.

The Meaning of Ethnology for Sociology—1. *Province and problems of sociology.*— It is impossible to give a complete definition of sociology yet. Such a definition must have for its foundation the widest and most abstract generalizations from the material with which we deal. However, there is need of a preliminary definition of the science with reference to the more closely related social sciences. Two preliminary considerations should be kept in mind. There is a close relationship of the phenomena treated by political economy and sociology, and a disadvantage has followed by dividing the more abstract principles between the two when the abstract side should have been given over to sociology and used by political economy rather as a method. Again, the historical school of political economy has complicated the problem of the division of labor by incorporating factors which clearly belong to sociology. Instead of recognizing political economy as a division of the more general science of sociology, the representatives of the historical school attempt to expand political economy into a sociology.

I may define sociology as the theory of social phenomena considered from the most general point of view. Its province would include the theory of the composition, forms, functions and the devolopment and abnormalities of human associations. The problems of sociology cannot be taken over by any other science, and their solution is urgently desired from both the theoretical and the practical side.

Six of the chief problems of sociology are as follows: First, the relation of the science to biology and psychology must be better worked out. Man as a social unit must be better known both somatically and psychically. One of its chief interests should be the construction of a theory of the races of men and of the anthropological types. The second problem is the clearing away of the unscientific illusions and constructions, such as the fundamentally false conception of the real equality of all men and their unlimited educability, with the survival of the *contrat social*, and much other rubbish. From the positive side, there must be the creation of a purely empirical foundation for all further sociological study. The third, and most difficult, whose fulfilment is far off, is the working out more completely of the hitherto neglected provinces indicated above. Fourth, a synthesis of all the separate social investigations. Fifth, the searching for the most general laws or regularities in societary life. Sixth, a systematic presentation of the preceding problems.

2. *The meaning of ethnology apart from the theory of evolution.*— We are concerned here only with the sociology of the primitive peoples. I want to remove the preconceived opinion that such a study is of interest chiefly because, according to the evolutionary theory, the primitive peoples give a living repetition of our own early history. If this were not the case at all, they would still be entitled to our most thorough study, merely because they are people, because they form societies of living beings, of men. Sociology is interested in all forms of human association, but here is a very large number of such associations, fairly well described, related in various ways, in all stages of development, though in the most different directions, and living in very unlike situations.

Many of the younger sociological students seem to be lacking in the real scientific interest of desiring to know and explain all the phenomena belonging to their field of work. They seem to regard the study of the primitive peoples as unworthy of their energies. We do not know yet the relations of the various forms and functions of these societies, and how they condition each other. There is a rich and fruitful field here for the sociologist. It is far away from the prejudices of today's complex questions and gives an excellent opportunity for the formation and working out of unprejudiced hypotheses.

3. *The analogy between our early ancestors and the primitive people of today.*— The evolutionary theory is doubtless true. The ancestors of the present civilized peoples, and of the civilized and half-civilized that have passed away, were once uncivilized. Guizot has pointed out the analogy between the early Germans and the Iroquois Indians. Mallery has shown the similarity in customs and beliefs of the North American Indians and the Israelites. Our folklore is a living reality among the present primitive peoples. The work of Post, Kohler, and Dareste shows that the development of law and legal institutions has not been different in principle for the primitive and civilized peoples. The unavoidable conclusion is that we can learn much about our past from the life of the present primitive peoples, and, owing to the

fact that history furnishes us data for only comparatively recent periods in human life, scientific ethnology has an important place in sociology.

4. *Position of the primitive people.*—The chief question under this heading is whether, in general, the primitive peoples possess a similar ability to the ancestors of the present civilized peoples; and, if all the conditions were the same, whether the development of the two would have been essentially the same, or whether they are fundamentally different, and so have followed different lines of development. Taking everything into consideration, it seems highly probable that the innate ability of all living primitive peoples is not of equal value for higher development. However, this difference in endowment does not destroy the value of the comparison between primitive and culture peoples. Certain lines of development are the same, and a more careful and critical study of the primitive peoples promises much for a science of association.

5. *Particular advantages of ethnology.*—The principal advantage that the study of ethnology affords is that it gives us insight into the less complex associative phenomena of people still living. Though the pure primitive type is rapidly vanishing, yet the knowledge of these peoples has increased considerably in recent years. New problems can be presented for study through ethnology, and we are much less dependent upon accidental discoveries of material than in archæology and early history. Not only can the great problems of social and cultural evolution not be solved without the aid of ethnology, but there are also many other questions that depend upon it. I may mention merely the question of the equality or inequality of the human races, and why certain races have not made much progress.

A beginning has been made in the study of the primitive peoples. The colonies of almost all the largest civilized states and of some of the smaller ones afford excellent opportunities for the continuance of the study. This work should be done while it is possible, for these people are fast disappearing. Ethnology is of incomparable value for sociology in all its relations. It ought no longer to be left to the care of a few dilettants or martyrs, but the universities should open their doors to it — and to sociology.—S. R. STEINMETZ, "Die Bedentung der Ethnologie für Soziologie," in *Vierteljahrsschrift für wissenschaftliche Philosophie und Soziologie*, XXVI. Jahrgang, IV. Heft.

E. M.

Australian Marriage Systems.—The so-called "class system" in Australia presents many various forms, and may occur where descent is reckoned either in the male or female line. But, speaking roughly, the following bars on marriage exist:

1. Each man and woman in a tribe belongs to one of two divisions or "phratries" within the tribe, say Matthuric and Kirarawa. Kirarawa must never marry Kirarawa, but always Matthuric, and *vice versa*.

2. Each man and woman also belongs to a given totem. Under Matthuric, say, six totems are ranged; under Kirarawa six others. Persons of the same totem may never intermarry.

3. Each of the two "primary divisions" is divided into two or more apparently *non-totemic* classes, the members intermarry as in a cross-figure in a reel, and their children take a name which is that of the class of neither father nor mother, the grandchildren returning to the class name of a grandparent.

In explanation of the primary divisions some inquirers say that the names are usually those of animals, and so are totemic; other writers insist that an original commune existed in an undivided condition at first and was then deliberately bisected so that half of its members might never marry with the other half, each half taking an animal name. Why such a deliberate bisection was made has never been explained, nor has an explanation been given of class two, for apparently nothing was gained by this classification, since by the primary division no one might marry within his or her totem-name.

My own provisional theory is as follows:

I do not think that very early man lived in an undivided commune of indefinite but considerable size and that the members intermarried. I think that difficulties of food-supply made a big horde then impossible, and that sexual jealousy, in an age so animal, made promiscuity improbable in a high degree.

I conceive, with Mr. Darwin, that men then lived in small knots, probably under one polygamous male. He would drive away his sons as they approached puberty, and all the females, including his daughters, would be his harem. All such male heads of groups would resent poaching on their game, the area of their food-supply, and their female mates.

Here we have a rude exogamy. No young male may marry in the group. But suppose that senescent or good-humored patriarchs allowed, here and there, young males to bring in female mates captured from without, probably going shares in them at first. Groups in which this was done would extend their area, being stronger, through the young males in war. Such groups would increase in size and in area of food-supply, while the combined young males would confirm their several rights to their captured females. Such groups would need names for all other groups in their radius, and these names would probably be the names of plants and animals. Such names would naturally give rise to speculation, as: "Why are we here Emus, Crows, Hawks, Frogs?" Myths would be invented: "Emu, Crow, Hawk, or Frog is our ancester, or ancestral friend, or we are evolved out of him. Being our friend and more or less sacred, we must not eat him nor touch a woman also of his blood."

Here, under a taboo, are involved exophagy and exogamy, each with a *superstitious sanction*. Now we have *two* marriage prohibitions, if we suppose that children of the Hawk or Crow group keep her group name when she is brought into the Emu group. As daughter of that *local* group, the Hawk woman's daughter is an Emu, and may not marry an Emu man. But as, by female descent, she is a Hawk, the girl may not marry a man of the local group Emu, who is also a Hawk, as son of a Hawk woman in the Emu group. A man, Emu by local group, Hawk by female descent, must catch a woman, Frog, for example, by female descent, Kangaroo by local group. But to get her while local groups are hostile may imply shedding kindred totem blood in battle. In these circumstances two local groups, Emu and Hawk, may make alliance and *connubium*. If they do, each local totem-group now becomes a primary division or phratry, each phratry containing different totem-kins by female descent, as in fact the two-linked intermarrying phratries always do (except among the Amuta). The local totem-taboo, and the taboo of totems by female descent, are both now respected, and a tribe with lawful brides accessible within itself is evolved. There has been no motiveless bisection, no equally motiveless segmentation into new totem-groups, no legislation enforcing exogamy on totem-groups not previously exogamous.

There remain for explanation the classes whose names are not apparently totemic, and whose members do not bequeath the class-name, either on the male or female side, to their children, who revert to grand-maternal or grand-paternal class-names. Of this arrangement, peculiar to Australia, Herr Cunow offers an explanation which seems to have plausible elements. These classes originally conveyed, in a rough way, a prohibition on marriages within the generation. Each name denoted coevals; "the old ones," "the young ones," their names often mean (Cunow). In Australia the young and the old are marked out by degrees of initiation, by duties and services, and by taboos on certain sorts of food. These taboos also applied to marriage. The strong point of Cunow's theory is that the names for the classes do, in many cases, mean "big" and "little," or "young" and "old," a point omitted by Durkheim in criticising the hypothesis. Meanwhile, by this time the tribes perfectly understand and can express real relationships by blood, as understood among themselves, and also, as a rule, object, as we do, to too near consanguineous marriages. This is the result of training in the rules, and of reflection on them.—A. LANG, "Australian Marriage Systems," in *Folk-Lore*, December, 1902.

E. M.

The Sociological Meaning of Alcoholism.— In order to give a correct answer to this problem, it is necessary that there should be agreement as to the method of investigation. I must refer to what Dr. Wlassak has said against the subjective method. I recognize the importance of the objective method, but I believe that introspection can give exact data, although they are not subject to such exact psycho-physiological measurement as Professor Kräpelin's method affords. From the memory the facts can be verified well enough, and where we are dealing with complicated phenomena,

we have, in general, no other method. We may cite here the statement of Helmholtz concerning the effect of alcohol on the complex mental processes and note that he used the subjective method. We cannot explain alcoholism without this psychical method or merely by the objective method. I believe psychological observation will agree with what has been verified by the biologists, pathologists, and psychiatrists. What I have to say will be drawn from the experience of a number of observations of others and from my own experience.

1. In the first place, all who had given thought to this question admitted that in excessive drinking they gained no real satisfaction. One feels that a person deceives himself and others in seeking arguments for the defense and praise of drinking. Professor Meyer has said that all alcoholism rests upon an illusion. It is self-deception. The physical as well as moral indisposition occasioned by intoxication cannot be denied.

2. This psychological judgment of alcoholism gives us the key to the sociological analysis. What is its meaning, considered from the culture-history point of view? I have asked professional men, noted artists, and good psychologists what their motive is for drinking. In short, their answer is that their principal motive is the desire for or pleasure in the Rousseau state of nature. When I call this "practical romanticism" I do not repudiate all romanticism. But I may call attention to the fact that many of the romanticists of this century have desired to vegetate, to lead the life of a plant or an animal. Comte went back to fetichism and attempted to explain the superstitions of civilized men on this basis. There are many defenders of superstition in modern times, and psychologically I consider the defense of the taste for alcohol the artificial employment of a superstition.

a) The modern man, not only the drinker, has a certain fear of clearness, precision, and purity of thought; he fears intellectualism or vigorous thought. Alcoholism, as Kräpelin shows, injures the power of thinking. The drinker desires and has a need of foggy thinking. Alcoholism is therefore culturally and politically unprogressive, conservative, and radically reactionary.

b) One of the defenses of alcoholism is that it gives something artistic, poetic, idealistic. Noted artists have often said to me: "*Ohne Wein gehts nicht!*" I admit that there are great artists who pay homage to wine, and much might be said upon this question, yet with reference to art it must be said that there is a distinction between fantasy and the fantastic. Or to say that in alcohol one finds idealism is a remarkable misuse of the word. To use idealism in this sense is to allude to myths and the mythical.

c) Another argument is that alcoholism increases cordiality, good nature, and sentiment. On the contrary, it does not promote, but rather injures, the emotional life. In alcohol one finds, not sentiment, but sentimentality. Investigations of the relation of alcoholism to crime show that it leads to violence rather than to fineness of feeling. With reference to the sexual life, which Professor Torel treated, I can only say here that alcoholism kills true love.

3. Relation of alcoholism to degeneration. While degeneration is not to be found in alcoholism only, it does furnish one of the threatening factors. The modern man is restless, and in the habitual use of alcohol searches for a new Eldorado. From this optimism he passes to a pessimism that leads to dipsomania and suicide.

4. I came to this congress a skeptic. I had not decided whether moderate drinking or total abstinence was right. I have heard the arguments *pro* and *con*, and they have made a decisive impression upon me. Not that I think the methods of the anti-alcohol advocates are entirely exact, not that I accept all that is attributed to alcoholism. A number of factors must be considered in this relation, such as nicotine, etc. I am inclined to think that certain arguments — as, for example, that alcohol is unnecessary — are not sound. There are many apparently unnecessary factors in civilized life which nevertheless serve some purpose.

The scientific argument for the *tactics* of abstinence — and first of all it is a question of *tactics* — is sound and convincing. I close with the confession that the argument for the *tactics* of abstinence convinces me that a life free from alcohol guarantees a higher conception of life, and therewith a happier and purer tone to life, and finally more beautiful conduct in life.—PROFESSOR DR. T. G. MASARYK, "Die sociologische Bedeutung des Alkoholismus," Sonderabdruck aus den Verhandlungen des VIII. Internationalen Congresses gegen den Alkoholismus, Wien, 1901.

E. M.

What is Religion?—"The first step toward a clear understanding of religion is to distinguish carefully between religion and religions. Religion is the root, the source, the parent of religions. It bears about the same relation to the various religions as a genus to its species. A definition which applies only to one religion is no more a definition of religion than the definition of a particular person is a definition of the *genus homo*."

Theologians and certain ethnologists have defined religion in terms of belief. We may readily admit that belief is an element in religion, as a more or less specific belief is an element in all religions; but when we define religion as a specific belief—for instance, the belief in God, in immortality, or in spiritual beings—we not only recognize an intellectual element, belief, but we make religion synonomous with a particular form of belief. Others, among whom are Professor Ward and Mr. Henry Rutgers Marshall, make restraint an element in religion. This point is well taken, but, judged from its origin and function, religion cannot be correctly defined as a particular form of restraint any more than it can be correctly defined as a particular form of belief. Religion and morality are two genetically distinct phenomena. Morality implies not merely restraint, but social and conventional restraint, and may be based upon public opinion and social conventions as well as upon religious beliefs. A definition of religion in terms of a special form of action or conduct is as erroneous as a definition in terms of belief, and yet we must admit that action, like belief, is an element in religion.

The feeling of impatience which the human mind experiences before the forces of nature, and out of which all religious ideas, however complex, are derived, has been fixed upon by some writers as the essence of, or the essential element in, religion. But such persons do not contend that religion is identical with feeling. In every religious act the whole personality is present. Why, then, should we define religion in terms of feeling, when feeling, like belief and action, is merely an element in religion?

The result of the discussion thus far may be summed up in the following proposition: "Religion manifests itself in belief, feeling, and action, and these three elements are present whether we consider it ethnographically as a social device or psychologically as a phenomenon of the individual consciousness. A correct definition of religion must then depend upon the relation and relative importance of these three elements." Now, the relation in the individual consciousness, and the relative importance of perception, feeling, and the conative impulse, are questions of psychology. It is to this science, and not to theology or ethnology, therefore, that we must look for a final definition of religion. But when we turn to psychology it seems to estop us from identifying religion with the perceptive, the affective, or the conative element, and to demand a form of definition which will include them all. Such a demand may be met, perhaps, by defining religion in terms of desire, or, better, effective desire. But desire for what? Given the perception of a power manifesting itself in the world and a feeling of dependence upon it, an inevitable result will be the desire of the individual to be in right or personally advantageous relations to that power. Conscious religious activity is always in obedience to this desire. We may suggest, then, as a tentative definition of religion, the following: "*Religion is the effective desire to be in right relations to the power manifesting itself in the universe.*"

If the definition here given is approximately correct, it is of tactical advantage to those who argue that religion is a permanent reality. For, though science may attack and destroy particular forms of belief, religion is unassailable; the roots of religion, imbedded in the soil of man's nature, will not be touched, and new beliefs will spring up to take the place of the old. Again, accepting the above definition of religion, we must regard more people as religious than are usually so regarded. Any man who recognizes, and desires to be in right relations to, "an Infinite and Eternal Energy from which all things proceed," without claiming to know the ultimate nature of that energy, is religious. It does not follow, however, that *all* men are religious. It is conceivable that the recognition of a mysterious power in the world, apparently outside of ourselves, may not be followed by an effective desire to be in right relations with that power.

"Finally, if religion has been correctly defined, it is not something which has been revealed to one people and withheld from another. It springs up naturally as

an element in the nature of man. It is not dependent upon the accuracy of his thought. It appears in the dawn of intelligence in the savage, who sees God in the clouds and hears him in the wind, and manifests itself in every age and among every people — in the philosopher, who seeks to harmonize his life with what he regards as the eternal and unchanging spirit of the universe, as well as in the saint, who looks upon the Lord as a very present help in time of trouble. Science is its handmaid, winnowing the chaff from the beliefs it has produced. The present demand is for recognition of the stability of religion, and the fearless and unsparing criticism of prevailing theological conceptions."— IRA A. HOWERTH, *International Journal of Ethics*, January, 1903. T. J. R.

Insurance against Enforced Idleness through Workingmen's Syndicates.—The object of a trade union is in part to study the interests of the trade, to discuss the conditions of work, to study the application of labor laws, and to encourage professional education. No small amount of success has been achieved in these directions, but success cannot be complete nor assured so long as the unions do not provide some security against and in case of enforced idleness. It has been said that out-of-work benefits ought to form the base of trades unions. To insure the workman against idleness would serve the interests of industry, would tend to ameliorate the condition of the working class, and would assist in maintaining the social peace.

Among the causes of idleness on the part of workingmen are the new inventions, often operated by a woman or a child; the sudden closing down or the completion of some great undertaking; the change of seasons, making work in some trades impossible; overproduction, political crises, abuse of credit, war, and strikes. Any provision that will help to avoid such unhappy events, and that would mitigate their evils when present, must certainly be worthy the attention of our officials and of the labor unions. Especially should this receive attention when the demoralizing influence of idleness is taken account of.

As means to prevent enforced idleness may be cited especially: (1) the recognition of the right to work, (2) the intensification of production, (3) the development of professional education, (4) charities, and (5) insurance. Of these, insurance is the most practical. It respects the dignity of the workingman; it cultivates his foresight, his saving. The other remedies are based on a social error; but, especially, they have proved ineffective or uneconomical.

Who should provide this insurance? Should it be the state? Some attempts have been made in Germany, in France, and in Switzerland. They failed. Should it be banks? When tried at Hamburg this failed. Fraternal or mutual insurance is the best form. Such an organization facilitates (1) the classification of risks, (2) efficiency of control, (3) the re-employment of those enforcedly idle, and (4) the best equalization of the work. Experience confirms this position.

We would suggest some things necessary to the practical working of an out-of-work-fund organization: (1) Payment from such fund should be only on account of being out of work. The fund should not be used to insure against sickness, accident, old age, or lack of employment caused by the change of seasons. (2) The idleness must not have been provoked by the laborer. If he loses his place on account of bad conduct, laziness, or unjustifiable insubordination, he loses his rights to any indemnity from the out-of-work benefit. But should he be forced to quit work because of an unjust diminution of his wages, or because of continuous vexation by his employer or his fellow-workmen, he would be justly entitled to a share in the benefit fund. Such regulations, instead of encouraging strikes, would be strongly conducive to industrial peace. (3) The indemnity from the out-of-work benefit should be appreciably less than the wages, so as to encourage seeking re-employment; and the premiums paid by any member should be regulated, not only by the amount of the indemnity such member should receive in case of enforced idleness, but also by the coefficient of risk of his being thus thrown out of employment in his trade. (4) The privilege of the indemnity should not be extended until sufficient time should have passed from the time of discharge to allow investigation so as to prevent fraud. (5) A minimum age limit of perhaps sixteen years, and a maximum limit of about fifty years, should be determined upon for members. (6) Transference of membership

from one trade benefit to another should be provided for, and when the change to another trade has become more than merely temporary, the credit for premiums already made should be transferred to the out-of-work benefit fund of the trade to which the worker has gone. (7) There should be gradation of "benefit" groups from local groups with their local treasuries to one central society with its general treasury. (8) The state should give such a workingman's organization legal recognition and standing. This was done in Belgium by the law of March 31, 1898.— M. L'ABBÉ E. VOSSEN, "L'assurance contre le chômage involontaire par les syndicats ouvriers," in *La réforme sociale*, January, 1903. T. J. R.

The Law of Future Specific[1] and Social Efficiency.— One of the most striking, and yet at the same time one of the least observed, facts about specific action is the pre-eminence of the specific as such. The individual is secondary to the species. Instincts, which are characteristically the grand trunk line of transmission and continuity in the lower orders or the zoölogical series, are peculiar and very important in this, that they are always, in their origin and bloom, for the benefit of the *species* to which the animal may belong which possesses the instinct. They are of benefit to the individual only secondarily, in so far as that individual may be of benefit to the species. The instincts of self-preservation and sexual love play subservient rôles in the paramountcy of the species. Duration of life in the individuals of any species is determined by the advantage to the species, and not by that of the individuals.

Individual provision and prevision is increased, corrected, and enlarged in scope by *social* or state provision. Taxation is being remodeled on this basis. Municipal improvements bear the imprint of the paternal. Large projects, such as transisthmian canals, national irrigation, transcontinental railroads, subsidizing a merchant marine, protection of growing industries, all bear witness of the fact that the nations are now doing consciously what formerly they did in more or less haphazard fashion.

Many sociologists manifest their alarm at the decreasing birth rate throughout the world. But when it is remembered that the individual is not so hopelessly isolated as formerly; that he is provided by tradition with the lessons of the past, with a rich store of extra-organic apparatus; that he is supported on all hands by social institutions; when it is considered that civilization in the last analysis is a sum total of adaptations whereby the forces of nature are utilized by man for the greater safety of the species — it may be that the members of the small family may acquire and accomplish more than the family of larger members. In man, art, religion, and science are in the long run, directly or indirectly, means for more certain perpetuation of the species and the more certain welfare of the same.

This universal organic and social process explains many features of great interest in the various fields of human activity. In law we view the gradual surrender of so-called individual rights to the rights of the state, the growth of freedom, etc., the development of the individual in order that the service of the whole may be increased by the strength of the constituent parts, the subordination of individual caprice to collective wisdom as seen in representative gatherings of all kinds, the predominance of self-sacrifice in the great ethical and religious movements of the world, life insurance, city sanitation, and the many acts of public philanthropy.

The beyond-man, as the child of the future, is the goal and sanction of social effort. In securing the greatest happiness or welfare of the greatest number we now see that the "greatest number" refers not so much to the majority now living as to that still greater majority — the unborn. Society is not composed of those now living; it represents the living as the servants of posterity. And yet we see such writers as Huxley, Spencer, and others so thoroughly saturated with idea of competition, *laissez-faire*, and struggle for existence that they lose sight, very largely, if not wholly, of the great racial struggle for future social efficiency.— ARTHUR ALLIN, "The Law of Future Specific and Social Efficiency," in *Journal of Pedagogy*, December, 1902.

T. J. R.

[1] The term "specific" obviously refers here to *species*.